Danish Arts

BY

J. J. A. WORSAAE

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THE INDUSTRIAL ARTS OF DENMARK.

PART I.

In the summer of 1882 *a Special Loan Exhibition of the Industrial Arts of Denmark, Norway, and Sweden, was held in the South Kensington Museum. In this was included a large collection of reproductions of Danish Antiquities, together with some original examples from the museums of that country, lent by the gracious permission of His Majesty the King of Denmark.*

At the request of the Lords of the Committee of Council on Education CHAMBERLAIN WORSAAE, *the well-known Director of the Royal Museums and Archæological Monuments of Denmark, has prepared this Handbook on the Industrial Arts of his country from the earliest times to the Danish Conquest of England.*

SOUTH KENSINGTON MUSEUM,
September, 1882.

THE INDUSTRIAL ARTS OF DENMARK

FROM THE EARLIEST TIMES TO THE DANISH CONQUEST OF ENGLAND.

BY

J. J. A. WORSAAE, Hon. F.S.A., M.R.I.A., F.S.A. Scot., &c.

DIRECTOR OF SEVERAL ROYAL MUSEUMS,
AND OF THE ARCHÆOLOGICAL MONUMENTS OF DENMARK.

WITH MAP AND WOODCUTS.

PART I.

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PREFACE.

It is well known, that the high development of Classical and Mediæval Art was to a great extent due to the deep religious feelings of the artists.

Hitherto, however, it has not been sufficiently acknowledged, that religious ideas had also a great share in the development of the Industrial Arts of primitive times, by which the way for a real higher art was gradually prepared.

In Asia, the father-land of the European people, the most magnificent buildings were erected, and the finest industrial objects were made in honour of the gods; and from an intense desire to give a visible form to these gods, to their sacred animals and other attributes, the first attempts of figurative representations took their origin. At a very early time ornaments were designed corresponding with the different sacred attributes and signs of the gods; these being of religious origin were adopted generally, and spread from Asia far and wide. Even in America the same sacred signs, and to some extent the same ornaments, derived from them, are to be found.

In my present work I propose showing how a common religious element in the development of the primæval Industrial Arts can

be clearly traced from the interior of Asia up to Denmark and onwards to the extreme north of Europe. Everywhere in the pagan ages the great phenomena of nature, the sun, the moon, and fire or lightning, were the origin of divine worship, of the sacred signs and the attributes of the gods, and hence of the decorative and figurative representations first commonly used.

I also hope to show how the development of the Industrial Arts continued slowly to advance from the south to the north of Europe, where, favoured by the secluded position of the different lands, and by the lively and enterprising spirit of the inhabitants, it reached a considerable height. No evidence of this remarkable fact is to be found in the historical records, written as they were at a later period, and often far from impartial.

I am much indebted to Miss M. E. Gooday *for the translation into English of my Danish text, and also to* A. Stewart MacGregor, Esq., *and* A. S. Fugl, Esq., *H. B. M. Vice-Consul at Copenhagen, for their assistance in the same work. The proofs have kindly been revised by my friend,* A. W. Franks, Esq., *of the British Museum.*

The drawings for the woodcuts were executed by Captain A. P. Madsen, *of Copenhagen, author of the beautifully illustrated work, "On the Stone- and Bronze-Ages of Denmark."*

J. J. A. WORSAAE.

Copenhagen, *June*, 1882.

THE DEVELOPMENT

OF THE

INDUSTRIAL ARTS OF OLD DENMARK

INTRODUCTION.

In comparison with the antiquity of the human race and its earliest dissemination over the earth the authentic written records of history are very modern.

Even in the countries on the coasts of the Mediterranean and in the interior of Asia, where circumstances were highly favourable to the development of civilisation, a long period must have elapsed before man had constructed for himself a written language, and, by its help, had succeeded in recording historical events. If, therefore, it be possible to trace back history in Asia, and still more in Egypt, to several thousand years before our era, there can be no doubt that the human race had even then passed through many pre-historic periods of thousands of years, during which, at any rate in Asia, it had by slow degrees raised itself from a very low state to the beginning of a higher condition.

In Europe not only is history of far more recent origin than in Asia, but it dates from very different periods in the different countries.

The further the land lay to the north and the less attractive its climate, the later was it populated and the slower was the progress

of civilisation and the attainment of the knowledge of the art of writing. How great was the difference in this respect, may be judged from the fact that the light of history shone brightly on the coasts of the Mediterranean,—in Greece about a thousand years B.C.,—while on the shores of the Baltic it first began to disperse the darkness of pre-historic times about 800 A.D., a difference in time of nearly 2,000 years.

As long as there was nothing to refer to but historical documents, the immeasurable pre-historic periods of the existence of the human race lay in the deepest obscurity.

It was generally supposed that a terrible state of barbarism must have existed everywhere, and that in fact man had not appeared on the earth much before the commencement of the historic period. The interest and researches of the learned were directed almost exclusively to the monuments and antiquities of the ancient culture-lands in Asia and of the classical lands on the shores of the Mediterranean.

About the still more ancient remains from so-called "barbarous" times, which were to be found there, as well as in other parts of the world, little thought or care was bestowed.

It was reserved to the present century to create a new branch of science, "Pre-historic Archæology," which, in combination with geology and other natural sciences, has cast an unexpected light on the primitive culture of man.

The investigations of the most ancient monuments and antiquities in every part of the world prove more and more clearly, on comparing them, that the development of culture in the human race has formed one long connected chain. Hence, through the different successive culture-periods, subject, however, to certain national peculiarities, a much stronger resemblance is to be found than had previously been anticipated. The common points of resemblance are too striking to be ascribed to chance or to the mere working of the laws of nature. They point rather to fixed centres of development, principally in Asia, whence originally both

the waves of population and the first movements of civilisation must have spread in different directions over the earth.

It is thus clearly proved that in an extremely remote antiquity man began to live in the "Stone Age," when, being ignorant of metals and their use, he was obliged to make all his tools and weapons of stone, bone, shells, and wood.

In this low state of civilisation, and with these simple instruments, man was able, nevertheless, little by little to make his way over the whole earth, at the extreme points of which (in North and South America, and also in the South Sea Islands) the last representatives of the primitive Stone Age may still be found in existence. The great antiquity of the Stone Age and its long duration is clearly proved, as it evidently, especially in the more favoured and accessible countries, has included several distinct periods, each of long duration, under which took place a slowly progressive development, which was constantly nourished by the influence it received from the original birthplace of the human race.

The constant discoveries in every part of Asia, particularly in India, the Indian Islands, China, Japan, Siberia, and elsewhere, show us that the first metal extensively used for tools and weapons was copper, or rather a mixed metal, Bronze, consisting of nine-tenths copper and one-tenth tin. It was soon discovered that this metal, whence the "Bronze Age" has received its name, was far more easily worked than pure copper. Most of the metal objects belonging to this period were not prepared by hammering or forging, but by casting, which therefore must have attained considerable perfection before the culture of the Bronze Age spread from Asia to other parts of the world.

As civilisation extended the value of bronze must have greatly increased, particularly in countries naturally poor in metals, especially as one important ingredient, tin, was at that time to be found only in a few quite isolated spots in Asia.

Consequently the culture of the Bronze Age was not spread so extensively over the earth as that of the previous Stone Age, in

which the population as it advanced everywhere found in the different lands some simple natural product hard enough to form the most indispensable tools and weapons. Nor can the Bronze Age compare either in antiquity or duration with the Stone Age. When once man had begun to search into the bowels of the earth for these valuable metals, many thousand years could not have elapsed, as in the case of the Stone Age, before some lucky discovery heralded the "Iron Age," and man smelted ore and wrought in iron.[1]

The general use of iron in the "Iron Age" effected a complete revolution in the development of the human race. With the new metal a new method of working it was introduced; it was now forged instead of being cast as in the case of bronze. The use of cast-iron was first known many centuries later, far up in the middle ages of the Christian era.

With these incomparably superior tools and weapons of iron and steel not only did it become possible to give the first strong impulse to Industry and Art, but the people who wrought iron were able, far better than before, to penetrate districts as yet unpopulated, or to make themselves masters of countries already cultivated and of their less favourably situated inhabitants.

It was in the transition period between the Bronze Age and the Iron Age that a written language and historical records made their first appearance in Asia, Greece, and Egypt. Further to the north and west of Europe a considerable part of a fully-developed Iron Age elapsed before History took its rise there.

Over almost the whole of Europe, but at different periods and in different ways, the most ancient population passed through the same pre-historic culture-periods—the Stone, Bronze, and Iron Ages—and in the same successive order as in Asia. But

[1] See "Des âges de pierre et de bronze dans l'ancien et le nouveau monde. Comparaisons Archéologico-ethnographiques." Par J. J. A. Worsaae. *Mémoires de la Société Royale des Antiquaires du Nord.* Nouvelle Série. 1880. Copenhague, 1881. 8vo. pp. 130–244.

nowhere have these periods left such numerous or such instructive monuments and antiquities as in the north of Europe: in Denmark, Norway, and Sweden, and above all, in the more fertile and accessible old Danish countries on the shores of the North Sea and of the Baltic. The Baltic especially must in primitive times have played a similar part in the north as the Mediterranean did in the south. The natural cause of the extraordinary wealth of Denmark and the rest of the north of Europe in pre-historic remains is due to the fact that the culture-currents, which often accompanied the waves of population emigrating from Asia, did not reach the extreme North until very late. Here, however, this culture maintained its footing much longer and developed itself much more fully on the ancient principles, while a very different and far more advanced culture had long reigned in southern countries, especially those bordering on the Mediterranean. In consequence of the remote position of the northern countries and the lateness of the conversion of the inhabitants to Christianity (in Denmark not until about the reign of Canute the Great, A.D. 1000), Heathenism must, of course, have left more numerous and much more distinct traces of the old heathen religion, and indeed of the life of the people under that religion, than are to be found in other lands inhabited by kindred Gothic-Germanic peoples.

It is therefore not surprising that the earliest and most trustworthy information concerning the most ancient culture-periods—the Stone, Bronze, and Iron Ages, and of the general state of man in pre-historic times—should come from Northern Europe, where contemporary monuments and antiquities have been preserved in great numbers and great perfection, and where they were first carefully investigated.

In contradiction to the old ideas as to the terrible "barbarism" which was supposed to have reigned in the North during the whole heathen period, even until 800–1000 A.D., when the dreaded Vikings or Sea-kings absorbed the attention of Europe by their harassing invasions and conquests in Russia, the British Isles,

France, and Flanders, it has been demonstrated by the irresistible evidence of the monuments and antiquities that there must have existed in the North, for several centuries before the Viking period, a high degree of wealth and luxury, combined with considerable ability, both industrial and mental, and that these qualifications gradually enabled its inhabitants to found and long maintain their important conquests in foreign lands.[1]

If such a development could have taken place at so early a period in the remote North, how much more advanced must have been the corresponding pre-historic condition of the Western and Southern countries, more highly favoured by nature and by the accessibility of their position.

From the fact that the common currents of European civilisation always attained their extreme limits in the North, they throw a remarkable light upon the state of Europe in general during these pre-historic times which have hitherto everywhere been misjudged.

Excepting during the very earliest times of the Stone Age, the existence in Europe of barbarism, strictly so called, can scarcely be maintained, especially after the remarkable and unanimous testimony afforded by the antiquities which are continually brought to light. With regard to the origin and development of European Industry and Art, a new and in many respects surprising basis for investigation is furnished by the discovery that in very ancient times a constant connection and intercourse subsisted between many of the peoples of Europe, even to an extent hitherto unsuspected.

[1] See J. J. A. Worsaae. "La Colonisation de la Russie et du Nord Scandinave et leur plus ancien état de civilisation," *Mém. de la Soc. Roy. des Antiquaires du Nord.* Nouvelle Série, i. 1872–1877, pp. 73–198. "La Civilisation danoise à l'époque des Vikings," *Ibid.* 1878–1879, pp. 91–130.

THE STONE AGE.

I.

THE EARLIER STONE AGE.

The first wave of population which, coming from the coasts of the Mediterranean, Asia Minor, and the shores of the Black Sea, spread itself over Europe, hitherto uninhabited, seems by preference to have followed the course of the open coasts and the great rivers. Not only was it easier for the wanderers to support themselves by hunting and fishing, but, as they possessed only the simplest and most primitive tools made of chipped stone, not as yet polished, of bone or wood, it was extremely difficult for them to force their way through the virgin forests and morasses, and over the snow-covered mountain chains, of which the interior of Europe at that time chiefly consisted. To this may be added, that the air near the sea was milder and healthier than in primitive forests and swamps.

Even on the coasts of the seas and rivers the progress of the advancing population must have met with many obstacles which it was extremely difficult for them to overcome with the simple resources they possessed. Nevertheless we learn from discoveries in the gravel beds and caves of France and England that the comparatively distant countries to the West and North-West, on the shore of the Atlantic, had already been inhabited at an extremely remote period, and when the great mammalia, the mammoth, the rhinoceros, the cave-bear, the cave hyæna, the rein-deer, &c. &c., dwelt in the land. It was only by degrees, when forced by the necessity of procuring food, that the increasing population invaded

the interior of the country. But, as yet, there is no proof that the advancing population had reached the shores of the Baltic or spread over the countries of the North during the earliest period of the Stone Age. Everything indicates that Northern Europe, with its more severe climate and less attractive aspect, was first inhabited towards the end of this Stone Age, when the rapidly increasing population in the adjacent countries required new hunting-grounds, and when the somewhat higher culture prevailing in Southern Europe gradually forced its way towards the North-West and North.

The enormous masses of ice which had originally covered great tracts of the interior of Europe, thus rendering the extreme North uninhabitable, had by this time gradually disappeared. Only here and there in the Scandinavian peninsula mountain summits crowned with ice and snow rose above the immense primeval forests of dark fir and pine trees, with which the rocks and valleys were clothed down to the shore. The Danish lowlands which border the Cattegat, the North Sea, and the Baltic, were also once covered with similar coniferous trees, chiefly firs, before the brighter deciduous forests of oak and beech, which now adorn the belts and sounds, were enabled, by a milder climate, almost entirely to overcome the pines and firs.

During the fir-tree period, at any rate towards its close, the first savage wanderers seem to have entered that part of Denmark which lay nearest to the European continent—the peninsula of Jutland. On the sea-coasts numerous heaps of oyster and other shells mingled with deer-antlers, the split bones of animals, fish-bones, fragments of pottery, charcoal, and rough tools of stone and bone,—the "shell-mounds" and "kitchen-middens" of science,—show that the inhabitants sought their chief food by hunting and fishing, and that by preference they dwelt in spots where, besides the game in the forests, fish and shell-fish were to be found in abundance in the sea. By degrees they spread further to the East over the islands of Fünen, Seeland, Lolland, Falster,

and the adjacent islets. On the more rocky and inaccessible Scandinavian peninsula they scarcely, in this early period of the Stone Age of the North, advanced further than the southern coasts lying close to the Sound and the Cattegat. All the rest of the Scandinavian peninsula lay buried in immense primitive forests, full of rocks, with wild animals for its only inhabitants; for it was not until later that the Lapps and Finns, whose descendants to this very day dwell in the most northern part of the Scandinavian peninsula, appear to have immigrated from Northern Russia through Finland.

In any case the Lapps and Finns of the extreme North were quite a different race to the inhabitants of the Danish lowlands, from whom they were widely separated by intermediate tracts of immense extent.

The people in Denmark of the earlier Stone Age must be considered as the descendants of hunting and fishing tribes of the West of Europe, where relics of their meals and daily life are frequently found in natural caves. The tools which they brought with them to Denmark, and which they long continued to imitate, are of the same simple shape and workmanship as the corresponding objects in their former home in Western Europe. The great number of these tools, which are often found together in the shell-mounds and elsewhere in the fiords and on the coasts, leads to the supposition that, according to the custom of savage nations, they must have been offered in sacrifice to conciliate their angry gods or to obtain their favour in hunting and fishing. Of the construction of any considerable stone chambers, barrows, or other important monuments, or indeed, of that degree of industrial or mental development which could have given rise to such, there is, as yet, no evidence. That these people were not of the very lowest grade of intelligence is certain, as they had learned the use of fire, and also knew how to shape and burn pottery; this enabled them to boil and bake their food, their chief object being to satisfy their wants in the quickest and easiest manner. To

effect this they contented themselves with the simplest adequate preparation of the necessary tools, the indispensable materials for which, especially flint of good quality, they found everywhere on the coasts of Denmark. The Danish lowlands, it is true, unlike Western Europe, did not furnish caves for dwellings; but in a thickly wooded country it was easy for them to construct huts of earth and branches, or even of timber, and to make clothes of the skins of animals, as a protection against the keen winds and the severity of the cold in winter. Under these circumstances it was not difficult for them to change their dwelling-place as necessity required.

Not only on the coasts of Europe, but also on the coasts in other quarters of the world, for instance in Japan and America, have been discovered many shell-heaps of the same kind, and with the same simple contents as the "kitchen-middens" of Denmark. They contain visible proofs that man, as long as his existence was dependent on hunting and fishing alone, with the accompanying struggle and want, nowhere succeeded in developing any high degree of industrial art, which in all cases required fixed dwellings and considerable material prosperity and, above all, a somewhat advanced mental and religious development.

II.

THE LATER STONE AGE.

How many hundred years, or, indeed, how many thousand years before the Christian era the earlier Stone Age began, or when it ended, it is, as yet, impossible to say. According to a very low calculation, founded on comparisons with other lands, and the duration and extent of the succeeding culture-periods in Denmark itself, there is little doubt that the Danish, and, indeed, the northern lands in general, were first populated *at least* 3,000 years B.C., and, probably, even earlier. The more primitive the state of culture, the longer it lasted, especially in remote districts. To this very day, wild tribes may be found in America and the South Sea Islands, living in the same primitive manner, and using tools and weapons quite similar to those used by the natives of the ancient Danish lands by the North Sea and the Baltic.

Thus, the first Stone Age in Denmark may, nay, *must* have maintained its primitive state of culture (the people living by hunting and fishing, and, in consequence, wandering from place to place), long after the more advanced culture of the later Stone Age, by cattle-rearing and agriculture, had procured for the inhabitants of Southern and Western Europe more stable and abundant sources of supply. These latter people knew how to cultivate land, to tend and breed domestic animals, to store winter food for themselves and their cattle, &c.

Even this primitive farming required fixed and roomy dwellings, as well as more varied and superior tools to those they had hitherto possessed. Their clothes no longer exclusively consisted of the skins of animals, but these were combined with plaited and woven materials, adorned with bone beads, shells, coral, and amber. The graves of the more prosperous were far larger and more durable than hitherto. They were constructed in the form of chambers or huts, and frequently with low entrances of heavy stone blocks, with enormous covering-stones. The dead were placed in them in a recumbent or sitting position, with their tools and weapons and some articles of food, and protected from the attacks of wild beasts, which were still very numerous. Stone graves of this kind, with similar contents, and dating from the same stage of civilisation, are found not only in Western and Southern Europe, but also far in the interior of Asia, in India, Japan, nay, even in certain parts of North America.

It appears, therefore, that the later current of the last period of the Stone Age had an extremely long and difficult path to traverse from the interior of Asia, through the more Southern and Western countries of Europe, to the remote North. Nor did it, as formerly, confine itself to the sea-coasts and the courses of the great rivers, but, for the sake of agriculture and pasturage, it also began to force its way through the virgin forests, which, however, considerably retarded its progress. From observations hitherto made we must conclude that, like the earlier Stone Age, it entered Denmark from Western Europe, and then, as before, first spread over the peninsula of Jutland. Step by step it made its way from there all over the Danish islands. Everywhere, but particularly in the most fertile parts, are found large stone graves, both long and round chambers ("Langdysser" and "Runddysser"), immense giants' chambers ("Jættestuer"), covered with earth, with long entrances—all strong evidence of the fixed dwellings, number, and constructive abilities of the inhabitants. The blocks of stone of which the graves were made, are, it is true, only large

stones in their natural state, chosen with one flat side, which was always turned inwards. The skill with which the roof-stones are placed over the supporting ones is often astonishing; and so accurately are they fitted, that they have for thousands of years defied the pressure of the heavy mounds of earth heaped upon them. With such appliances it is not surprising that the people were able to advance considerably further east of the Sound and further up the Scandinavian peninsula than the previous inhabitants had been able to do. On account of the rocks and the impenetrable forests in the interior of this peninsula, the immigrants generally kept to the shore of the seas and rivers, but by degrees worked their way up to the great lakes—the Vennern and the Vettern—that is to say, to about the 59th degree N. Lat., where they seem to have eventually stopped. For, north of this line, up to the extreme verge of Norway and Sweden, comparatively speaking, only a few and more scattered tools and weapons of stone and bone have been found, and these doubtless belonged to roving hunters and fishers. But beyond that degree of latitude no large stone graves, or indeed any solid monuments of any kind, properly belonging to the Stone Age, have been discovered, although the countless loose blocks of stone which are found there would have greatly facilitated their construction. Thus the central point of the highest development of the Stone Age in Scandinavia lies to the south, in the ancient Danish lands. These from remote ages, until modern times, included the duchy of South Jutland or Slesvig, on the peninsula of Jutland, the districts of Scania, Halland, Bleking, and Bohuslehn, in the present kingdom of Sweden, and occasionally several others, chiefly lying in the south of the country now known as Norway. The districts in Sweden were ceded to the Swedish crown in 1658—1660; the duchy of Slesvig was conquered by Prussia in 1864.

During the steady advance of the later Stone Age over the ancient Danish lands, bringing, no doubt, immigrating tribes in its train, the former primitive state must have subsisted side by side

with the new and higher culture. On that account the finds now and then contain a mixture of both simpler and more developed articles of very different origin and kinds. Some objects, particularly the flint chips or flakes, which with a skilful blow were struck off the larger blocks, remained unchanged during the whole of the Stone Age. But, in general, the great majority of the tools and weapons, &c., in the last period of the Stone Age underwent a radical change for the better.

It is clear that it was first by the introduction of cattle-rearing (possibly also by the cultivation of the land) together with the demand for improved requisites for hunting and fishing, that a real though very simple industry began to develop itself in the North, as it had already done in the other countries of Europe; and the more easily that the foundation had already been laid in the Southern and South-Western lands. Among the more advanced of the people of the Stone Age, representatives of which are still in existence in America, it has been observed that a division of labour took place; certain tools and ornaments being wrought by certain persons accustomed to the work, and who regularly traded in them, wandering about for that purpose into very remote districts. Something similar must undoubtedly have taken place in Denmark and in the other parts of the North in the later period of the same age. Large finely-formed flint implements and ornaments in amber are found high up in the Scandinavian peninsula, in spots where neither flint nor amber is indigenous, and where, in many cases, they must have been brought from Denmark, itself naturally rich in both substances, and obtained by barter. It is evident that although it might be easy to make the simpler and more indispensable implements, every man could not possibly have been qualified to fashion and polish the fine specimens peculiar to the North, which are as remarkable for their workmanship as for their form.

To be able to chip the hard flint (often as fragile as glass) in a masterly manner, a very close knowledge of the nature of the

material, as well as of where it was to be found, was necessary. As long as they used only the loose blocks lying scattered about on the surface of the ground (as was the case in the first Stone Age), they were only able to make comparatively small and rough flint implements, as, from the influence of the sun and air, the flint had become harder and more brittle. They did not learn until later that flint is much easier to work and fashion immediately after it is taken from its natural bed in the earth, when it is capable of being divided into much larger and thinner flakes while retaining a certain amount of its inherent moisture. On that account, in the later period of the Stone Age, deep pits with long subterranean passages were excavated in France, Belgium, and England, whence the flint was dug, fashioned immediately, and afterwards carried from these places all over the country.

In Denmark no such deep pits have been discovered, probably because the flint could readily be obtained from the extensive and easily accessible chalk layers. But even here a considerable difference is observable in the size and workmanship between the earlier and the later Stone Age. In Denmark extensive work places have frequently been discovered. A characteristic of the later Stone Age in Denmark, as already mentioned, is its extraordinarily high development. The culture of the later Stone Age had already reached an extremely advanced stage when from North Germany, and particularly from Holland and Hanover, it first entered Denmark. Peculiar forms of tools and weapons (this not being the case in the Western countries) had already begun to appear in those parts of Northern Europe which lay nearest to the southern boundaries of Denmark. But it was in Denmark, so fertile and so richly provided with excellent flint, that the culture of the Stone Age, favoured also by other circumstances, was able to attain to a height unparalleled in Europe, and indeed in any other quarter of the world.

Among the tools and weapons belonging to this period, which have been found in large quantities in the graves and in the fields

and bogs, the greater part are made of the indigenous flint, which was admirably fitted for the formation of sharp hewing and cutting implements. As hitherto, the natural flint blocks were shaped by being split by striking them with other stones or by using pieces of bone inserted in hafts. But after splitting and chipping, which in consequence of long practice and better knowledge of the nature of the material were performed with increased skill and delicacy, the articles were often, though not always, carefully polished, sometimes only on the edge, sometimes at the flat surfaces, and sometimes over the whole object. In spite of repeated practical experiments, it has not been hitherto discovered how this polishing (which nevertheless produced perfectly straight, as well as convex and concave surfaces) has been effected. We only know that as a rule the polishing was of two kinds. That the first polishing or grinding was effected by means of sand and water is evident from the parallel lines, which are so regular that it is clear the object in question must have been made fast in a sort of frame, while some kind of simple mechanism was doubtless employed to grind the hard outer surface of the flint. The last smoothing consisted in a species of polishing or rubbing with hand-power, to which purpose the numerous polishing stones which have come down to us from the Stone Age were particularly well adapted.

Besides the usual flint implements required for daily use, chiefly axes, of about the same sizes as have been found in other countries, there have been discovered in Denmark considerable quantities of very beautiful and large flint axes, both polished and unpolished, of from twelve to sixteen inches in length (Figs. 1 and 2). Practical experiments have proved that edges produced by chipping are far inferior in usefulness to edges that are either ground and polished or produced by simply splitting the flint. In many cases, therefore, the unpolished flint axes may be considered as unfinished articles, but, on the other hand, their number is so great and they are so carefully chipped that it is

FIG. 1. ($\frac{1}{3}$.)

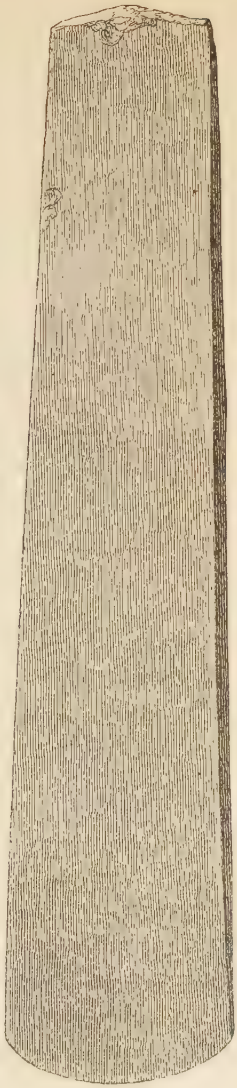

FIG. 2. ($\frac{1}{3}$.)

quite impossible to regard them all in this light. To this may be added that they are most frequently found buried in fields and bogs under circumstances which indicate that they have been destined for some peculiar purpose, especially the very large axes, both polished and unpolished, which most probably have been objects of luxury, religious or secular.

There can be no doubt that flint axes and chisels were very useful implements in the felling of trees, the construction of huts of timber,

FIG. 3. ($\frac{1}{2}$)

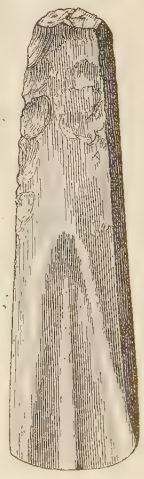

FIG. 4. ($\frac{1}{3}$)

and similar work, particularly when they had ground edges, which experiments recently made have proved could endure even hard blows without breaking. In consequence of the extensive use of axes and chisels for different purposes, there existed many typical varieties, which, with some modifications, are found again and again. To the most highly developed of these forms belong the gouges (Figs. 3 and 4), which were probably used to hollow out bowls, tubs, troughs, canoes, and boats; the latter

were however also made of the trunks of large trees hollowed out with the aid of fire.

Still more peculiar are the narrow chisels (Fig. 5) and the narrow gouges (Fig. 6) which, sometimes, are as remarkable for their being perfectly square in section and highly polished, as for their length. Occasionally (as for instance in Fig. 7) they measure about sixteen inches. In making holes in planks and beams these narrow chisels would be particularly serviceable.

The flat-sided axe and chisel types represented here (Figs. 1, 2, and 4—6) which are very common in the ancient Danish lands, and which are also found, though more rarely, in the north of Germany, in Sweden and Norway, are almost unknown in the British Isles, in Belgium, in France, and in Southern Europe, where the sharp-sided types are prevalent (like Fig. 3).

The daggers, knives, and spear-heads so common in Denmark, and which are certainly the most admirable specimens of flint chipping which have as yet been discovered, are also quite unknown out of Northern Europe, and especially in Denmark and Scandinavia. It is remarkable that these flint implements (often quite worn by use, and in the fabrication of which extraordinary care has been employed) have apparently never been intended to be polished, as only in extremely rare cases are there a few slight traces that the polishing of the surfaces and edges had even been attempted. In this respect they form a great contrast to the large flint axes, which are apparently quite superfluously polished. It is possible that the workman feared to expose the thin delicately-chipped blade to the danger of breaking in grinding.

In the daggers or knives with hafts (represented in Figs. 8, 9), not only is an awakening sense of beauty of form displayed, but also a taste for ornamentation, as far as it could be carried out in such a material as flint. The ornamentation, which consisted of a raised frill down the centre and edges of the handle, was probably partly chipped and partly pressed out, with special instruments

FIG. 5. (⅓)

FIG. 6. (⅓)

FIG. 7. (⅓)

Fig. 8. (⅓.)

Fig. 9. (⅛.)

for the purpose, made of bone. In the same way the square handle of the knife (Fig. 10) must have been formed. The masterly manner in which the people of those times handled flint

Fig. 10. (⅓)

Fig. 11. (⅓)

is proved, not only by the unique curved knife or sickle (Fig. 11), which is of the remarkable length of fourteen inches, but also by

FIG 12. ($\frac{1}{3}$)

FIG. 13. ($\frac{1}{3}$)

the numerous knives or spear-heads which are still flatter, and sometimes a few inches longer (Fig. 12), where the surprisingly regular flakings, frequently running parallel, cover the whole surface of the blade.

Among other characteristic flint objects, a peculiar kind of spear-blade, with saw-like teeth, is very remarkable; some few of them (as Fig. 13) are of considerable length; and we must also

Fig. 14. (⅓.)

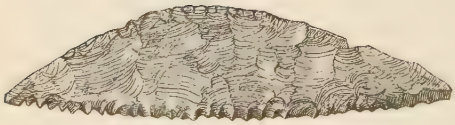

Fig. 15. (⅓.)

Fig. 16. (⅓.)

notice the curved implements known as crescent-shaped knives (Figs. 14, 15), of which the edges have also been carefully chipped out like the teeth of a saw. These saw teeth are found in the greatest perfection on the small, often admirably chipped, arrow-heads. When the spears or arrows were of bone, they often had a groove on each side, in which were inserted small thin bits of flint, kept in their places by means of pitch (Fig. 16). Similar

tools and weapons of bone and wood, with sharp pieces of stone or teeth of animals thus inserted, have been found in America, the South Sea Islands, and Australia.

As the treatment of hard and brittle flint was carried out with such artistic skill and sense of beauty of form, it is not surprising

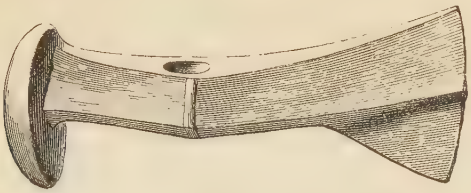

FIG. 17. ($\frac{1}{3}$.)

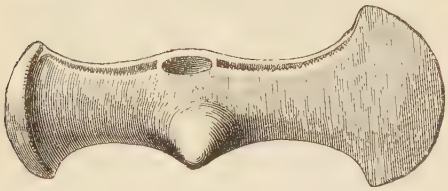

FIG. 18. ($\frac{1}{3}$.)

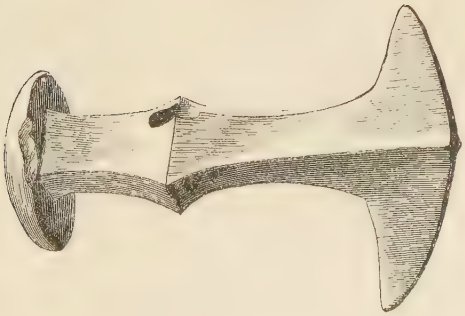

FIG. 19. ($\frac{1}{3}$.)

that workmanship in softer kinds of stone should have made corresponding progress. No finer specimens of workmanship from the Stone Age have, perhaps, ever been made, either in Europe or any other part of the world, than the elegant hammers or axes, with shaft-holes, which are often of rare and variegated

stone (Figs. 17—20). Sometimes the axes or hammers with shaft-holes are made of flint, but in that case flints with holes formed naturally have been chosen, as the workmen were not able to bore holes in the flint itself. The boring of the softer kinds of stone was no doubt effected by means of sand and water, with a piece of bone or wood, sometimes cylindrically shaped. On this account a small projection has occasionally remained untouched in the centre of the unfinished bore-holes. The borer

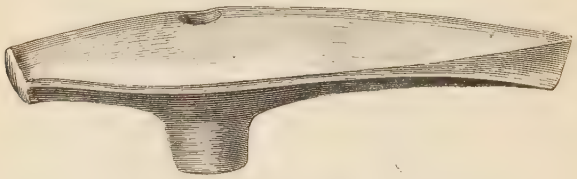

Fig. 20. ($\frac{1}{3}$)

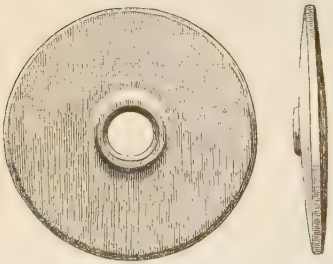

Fig. 21. ($\frac{1}{3}$)

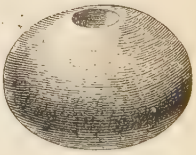

Fig. 22. ($\frac{1}{3}$)

seems to have been fastened to a disc or wheel of stone (Fig. 21), so that by means of a thong or withy the rapidity of the turning could be accelerated, and thus the effect of the boring instrument increased. It is evident that stone implements of the same form must often have been employed for different purposes. The larger perforated stone discs may, therefore, like the round perforated stones (Fig. 22), have been attached to wooden handles or sticks. Several tribes now existing in the South Sea Islands, and in Africa, use exactly similar stones attached to sticks, some as clubs, others as weights for giving additional leverage in digging. These discs

and balls, as well as the chisels with handles, sometimes found with them (Fig. 23), are often made of choice sorts of stone, and carefully ground or polished. Although there was no want of the superior material, flint, in Denmark, yet axes, wedges, and chisels of softer stone are found in no small quantity and in considerable variety. Some have grooves cut for the attachment of the wooden handles, others (Fig. 24) have at the upper end a hole bored from each side as if they were intended to be hung up or carried.

FIG. 23. ($\frac{1}{3}$.)

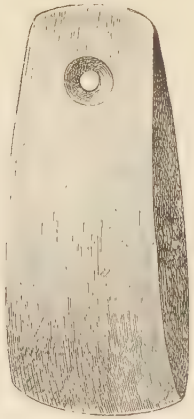

FIG. 24. ($\frac{1}{3}$.)

Among the numerous stone objects which have been collected from all parts of Denmark during the present century alone, many are found to bear traces of use and wear, and of a renewed perforation, chipping or grinding, in consequence thereof. On the other hand, very many of these objects, from their extreme brittleness and impractical shape, seem hardly to have ever been calculated for use, and, indeed, are evidently in a state of such perfect preservation, that they appear to have been quite new, or

at any rate, unused, when they were buried in the ground. This is especially the case with several of the very largest and finest polished stone axes (Figs. 1, 2), and some of the longest and most carefully-chipped spear-heads or knives (Fig. 12), which, strange to say, have never been found of so large a size in any grave, not even in those of the most important chiefs.

As, on the contrary, they are constantly found, often several of them laid carefully side by side, in bogs and fields (generally under a large stone, or close beside one), it may reasonably be supposed that they have chiefly been intended as religious offerings, which satisfactorily explains the careful chipping or polishing which would otherwise have been superfluous. In one bog three flint axes of the larger kind were found, evidently placed with a symbolic purpose, being set up as a kind of roof over a quantity of uncut or rude pieces of amber, which certainly at that period formed a valuable treasure. Amber was then, as now, found in Denmark, especially on the coasts of Jutland, and at that time was highly esteemed for ornaments, both in the country itself and abroad. Similar religious deposits have frequently been found in bogs, often in earthen vessels surrounded by stones, and consisting of cut amber ornaments, which by their shape and the holes pierced through them must have been intended to be worn as pendants, necklaces, and belts. Sometimes as many as several thousand have been found on one spot. The very peculiar mode of burying these objects, which is constantly repeated in these finds, probably indicates that the articles were not accidentally dropped, but intentionally buried as offerings to the gods in hopes of winning their favour both in this life and in that which is to come. There is no doubt, however, that some of these deposits of valuable objects have been treasure or stock in trade which, in a moment of threatening danger, may have been placed there for safety, and, for various reasons, have been left buried in the ground.

It is in any case quite clear that amber was eagerly sought on

the coasts of Denmark during the Stone Age ; that a considerable trade in it by barter must have been carried on in different directions beyond the boundaries of Denmark, and that its price depended on its size and workmanship. A counterpart to this trade in amber in Denmark may be found in the trade in beads made of shells in North America, where the Indians to the present day carry these "Wampum beads" or "Wampum belts" from the coast into the interior of the great continent, and where these shell-beads, having received a fixed value (dependent on their size and the skill with which they are pierced), have long been used in barter as a kind of money. As in the north of Europe so in

FIG. 25. (½.)

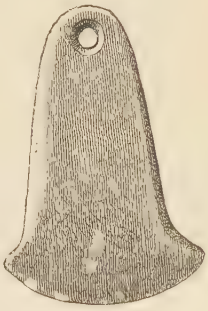

FIG. 26. (½.)

America they have often been buried as propitiatory sacrifices to the gods, or as offerings at the graves of the dead.

In almost every "cromlech" or "dolmen" in Denmark not only are amber ornaments of the same forms found, as those in the finds in the bogs (cf. for example Fig. 25) ; but also perforated pieces of amber which unmistakably are intended to represent axes or hammers, though in a much diminished size. The pendent ornament (Fig. 26) is evidently an imitation of the perforated stone axes. (Cf. Fig. 24.)

The amber beads (Figs. 27 and 28) represent common forms of stone hammers, often found in these cromlechs, and which are made with much care and skill. There is a

remarkable resemblance between the small hammer-shaped pieces of amber in the south of Europe, and the small stone hammers of North America, which being so delicately perforated could never have had strong wooden handles, or, indeed, been intended for use, but must have been worn on a string as a kind of protecting amulet, whence they have received the name of "ceremonial hammers." In fact, hammers and axes have had a symbolical signification among many different peoples, dwelling far apart from each other. Figures of axes are often found carved upon the side stones of the graves of the Stone Age in Western Europe. Not only in Europe but in other parts of the world small stone axes have been worn as amulets for luck. The inhabitants of several

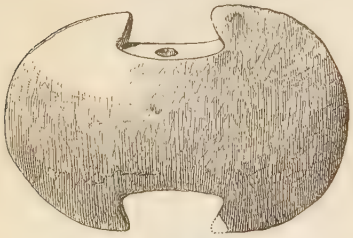

FIG. 27. ($\frac{2}{3}$.)

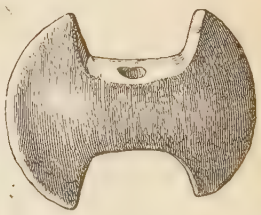

FIG. 28. ($\frac{2}{3}$.)

of the South Sea Islands possess "ceremonial hatchets," which are used at religious festivals and similar solemn occasions.

Some of the oldest representations of the god of thunder or lightning, which have been found in Europe and Asia, represent him with an axe or hammer in his hand. It is also well known that the stone axes are called "thunderbolts" over the whole world, on account of the universal superstition that they fall from the sky during thunderstorms.

This supposition cannot, however, have been general at the time when man himself made and used these stone axes: but must have been a subsequent idea, which, to judge from the peculiar occurrence of hatchet-shaped objects in the bogs and

grave finds, doubtless had its origin in the fact that the axe and the hammer were, in the Stone Age, sacred to the mighty divinity of thunder or lightning, who not only inspired terror, but greatly contributed to the increase of the fertility of the earth. It is, therefore, quite natural to suppose, that it was the protection of that god especially which was invoked, and was believed to be secured by wearing hammer- or hatchet-formed objects, or by burying them in the ground as propitiatory sacrifices. In the same manner, other implements, such as spears, arrows, and curved half-moon-shaped knives, which are often found buried separately in great numbers, seem to have been dedicated to other divinities, probably the sun and moon.

Of all natural phenomena, lightning and fire, and the sun and moon, must over the whole world have been the first objects which attracted the attention of man, and formed the subjects of

FIG. 29.

FIG. 30.

his adoration, as their mighty influence on the whole creation was most apparent. Particularly in the extreme North, where the cold was so keenly felt, there was a double reason to value the warm rays and fertilising power of the sun, and, therefore, the worship of the sun must have been generally disseminated there from the earliest time of its occupation by man. It is highly characteristic that not only outside the cromlechs but also inside, on the stones which form the sides and roofs of graves in Denmark, there have been found carved ring-crosses, under which form many other peoples in Europe, Asia, and America, have constantly represented the sun (Fig. 29).

In a similar manner, on these grave-stones, cup-shaped hollows are found produced either by punching or grinding (Fig. 30).

These hollows have been found almost over the whole world,

originating in very early times, and almost to the present day they have played a part in the superstitions of the common people.

Whether they were intended to represent the moon, which from remote antiquity has been represented by a perfect ring for the full moon, and a half-ring or sickle for the crescent, it is impossible as yet to decide. Comparative investigations, however, seem to prove that the circle or cup marking has been the symbol of fertility, representing the feminine principle, just as the ring-cross represented the masculine principle in creation. It seems extremely probable that it was the intention thus to recommend the dead buried there to the protection of the divinities, from whom the life and growth of every creature, both in this world and the next, were supposed to proceed.

That the people of the Stone Age had an idea of an after life seems to be proved by the care with which they constructed their graves, and from the fact that they fitted out the dead for their journey to the other world with weapons, tools, ornaments, and victuals. The bodies were buried unburnt, but, in many cases, not until the fleshy parts had disappeared. Several crom-lechs in Denmark have, like the 'ossuaries' of North America, been crammed full of such skeletons. With the bodies, which were often buried in these graves in a sitting or contracted position, are found the bones of animals, recognisable remains of victuals, and, near them also, several different kinds of earthen vessels which may possibly have served for lamps (Fig. 31), but especially as depositories for food (Figs. 32—34) and drink (Figs. 35, 36).

These earthen vessels are a new and remarkable proof of the comparatively high position in industrial respects already attained by the inhabitants of Denmark in the Stone Age. Though the vessels do not appear to have been turned on a wheel, they are remarkable for their tasteful shape, and the amount of their ornamentation. To increase the effect of these ornaments, they sometimes filled them with a peculiar white, chalk-like substance.

It is very possible that more skill may have been employed in the fabrication of the earthen vessels found in these graves, than was bestowed upon the common earthen vessels destined for daily use, and that, as has been shown to be the case with the largest and handsomest stone implements, they probably

FIG. 31. ($\frac{1}{2}$.)

FIG. 32. ($\frac{1}{3}$.)

had a religious destination and were not intended for ordinary use. Thus, if the Indians of America, before the arrival of Europeans, could place a sickle in the hand of one of their divinities of fertility as an emblem of the half-moon or of the

rainbow, it is easy to suppose that the peculiar large flint sickle (Fig. 11) may have been finished with such remarkable care and skill because it was intended to be a symbol of a divinity.

It is well known, from the evidence of many other countries, that the first dawning development of industrial arts is closely connected with the religious ideas of the primitive people, and thus, to a great extent, rests upon a religious foundation. But even if this were also partly the case in Denmark, several other circumstances no doubt contributed to raise the industry of the Stone

FIG. 33. (⅖)

Age there to a considerable height, at any rate in the later period: namely, the excellent natural materials found there, the long duration of the Stone Age, and the frequent intercourse with more civilised peoples.

It can hardly have escaped the reader's attention that several of the more highly developed objects represented here, particularly the stone hammers and flint daggers with elegant handles, display a striking resemblance to similar objects in metal of the Bronze Age, which, in its slow advance northwards, must have

long prevailed in central Europe and the north-west of the present Germany, while the Stone Age was still flourishing in the old Danish lands.

From the lively intercourse between Denmark and the neighbouring countries, chiefly consisting of trade by barter, especially in amber, it was extremely likely that some stray bronze objects should find their way into the remote North, where, by

FIG. 34. (⅓.)

this time, a considerable amount of prosperity must have existed, owing to the development of husbandry, cattle-rearing, and trade. But as the new metal was as yet rare and costly, the natives were at first often obliged to content themselves with imitating the handsomer foreign forms as closely as possible in the indigenous material, stone. These influences, working in different directions, must have greatly prepared the way for, and promoted the gradual

progress of, the higher culture of the Bronze Age, and aided it in

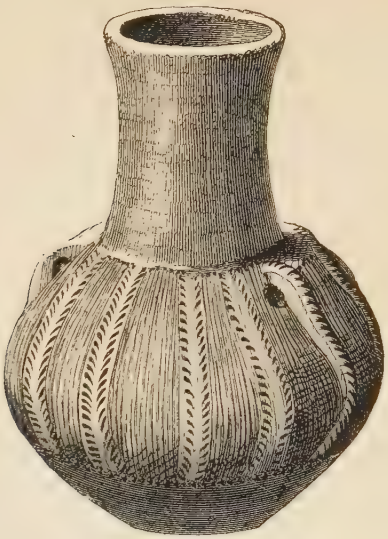

FIG. 35. ($\frac{1}{4}$)

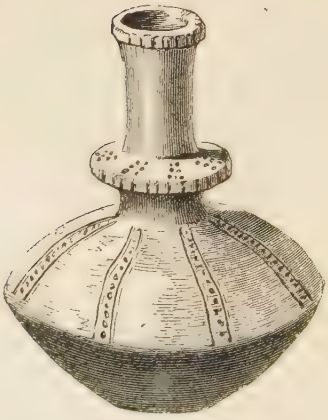

FIG. 36. ($\frac{1}{4}$)

supplanting the Stone Age in the lands bordering on the Cattegat and the Baltic.

THE BRONZE AGE.

I.

THE EARLIER BRONZE AGE.

That the Stone Age really preceded the Bronze Age in Denmark is clearly proved by the numerous tumuli or grave mounds, containing, at the bottom, peculiarly shaped stone chambers with implements of stone and bone, and amber ornaments, and, nearer the surface, later made graves of quite another form, with weapons, tools, and ornaments of bronze and gold. Notwithstanding the incomparably higher culture introduced by the Bronze Age, neither inscriptions, nor, indeed, any other trustworthy means of ascertaining the date of the commencement of this Age in Denmark, have as yet been discovered. But, by comparing the "finds," it is clearly seen that the Bronze Age there must have been of very long duration, probably, at least, a thousand years, and that it hardly came to an end in the North before the commencement of the Christian era. For the present we must conclude that the Bronze Age first began near the Baltic about 1,000 B.C., at a time when the Iron Age had already made great progress in the countries bordering on the Mediterranean, particularly in Greece and Italy, where it soon laid the foundation of a new, and incomparably higher culture.

Like the Stone Age, the Bronze Age also originally came into Europe from Asia. But while the Stone Age in its earliest advance chiefly followed the coasts of the seas and the courses of the large rivers which fall into them, the Bronze Age, with its more powerful implements, was able at once to force its way

through the interior of the countries, without receiving any serious check from the primitive forests, the marshes, or similar natural obstacles. The Balkan mountains and the Alps alone, the northern frontiers of the Grecian and Italian peninsulas, seem to have been an almost insuperable obstacle to a free intercourse between the lands lying north and south of them. At all events, these great mountain ranges were the chief cause that the currents of population and of civilisation (which in the Bronze Age steadily advanced from Asia to the south-east of Europe) were at first compelled to divide themselves into at least two principal streams, one of which turned to the south, the other to the north of these mountain ranges.

The southern of these two streams, which, from the coast of the extreme east of the Mediterranean, passed through Egypt, Asia Minor, and Cyprus, must naturally at a very early period have spread itself over the Grecian peninsula and the adjacent small islands. It there laid the foundation of a culture of the Bronze Age, which, aided by an easy and frequent intercourse with Egypt and the ancient culture lands of Asia, soon raised itself to a considerable height. In contradistinction therefore to other parts of Europe, Greece can show, from this period, by the side of articles of bronze and gold properly belonging to the Bronze Age, objects in silver, ivory, and alabaster, doubtless in great part foreign, and also carvings in stone, representations of human and other figures, inscriptions and other evidences of the influence of Asiatic and Egyptian culture and art. From the Grecian peninsula the knowledge of bronze and gold, and of their use, spread towards the west along the coasts of the Mediterranean to the Italian peninsula, particularly to the southern part of it, whence it took its course, somewhat more slowly perhaps, to the Spanish peninsula, and up the course of the Rhone to the interior of France; thence to the British Islands.

The northern branch of the common Asiatic main stream

spread through the lands by the Black Sea to the valley of the Danube, and thence to south-western Germany. Thence, again, it advanced slowly towards the North, following the course of the Rhine and the Elbe. In its first advance towards the North it does not seem to have extended in a straight course beyond the Carpathian and adjacent wooded mountain ranges. For this reason the eastern part of Germany nearest to the north of these mountains long continued to have but a scanty population, and a comparatively inferior civilisation. On the other hand, in the more accessible, fertile, and tolerably metaliferous valleys of the Danube, the Rhine, and the Elbe, the culture of the Bronze Age during its steady advance came in contact with different peoples, and thus had a favourable opportunity to develop itself upon its original Asiatic basis. On the Rhine and the Elbe the new culture of the Bronze Age, and the fresh tribes it probably brought in its train, came in contact with the firmly settled people of the Stone Age, who had already attained a considerable degree of culture. By mingling with them, the people of the Bronze Age seem at first to have adopted or adapted some of their burial customs, chiefly that of interring the dead unburnt in large tumuli or grave mounds, often in chambers or cists formed of stone. In Eastern Europe, strange to say, there have not been found either large tumuli or unburnt corpses belonging to that time. The burning of the body was, however, the burial custom most characteristic of the Bronze Age, at any rate during its latest stage.

After a long and toilsome wandering through many lands, the Bronze Age in its full development reached the old Danish districts near the Cattegat and the Baltic. The Bronze Age, from the contiguous North Germany, entering probably from Hanover and Mecklenburg, had already exercised considerable influence on the population of the Stone Age in Denmark. It was therefore all the more easy for the new culture, with its superior weapons and tools, to make its way from the south over the peninsula of

Jutland, and farther eastwards to the Danish Islands and the southern part of the great Scandinavian peninsula. Very many of the tumuli which have been examined over the whole extent of that great district have proved that the oldest graves, which lie at the bottom of the mounds, contain unburnt bodies, generally placed in large stone or oak cists, with peculiar antiquities of bronze or gold. The more recent graves in the top or on the sides of the mounds contain burnt bodies, generally placed in smaller stone cists under small stone-heaps or in clay urns, with objects of bronze and gold, formed and ornamented after quite another fashion from those of the primary interments.

Thus it is proved from these as well as from other finds in mounds, bogs, and fields, that the Bronze Age in Denmark may be divided into two periods, and that in both these periods gold and bronze have been the only metals of which anything was known. During the first period, that of the unburnt bodies, these metals appear in astonishing abundance in the North. This is doubly surprising, as the Danish lands contain neither copper, tin, nor gold, and the rich copper mines of Norway and Sweden were not as yet discovered, and, indeed, remained unknown until far into the middle ages. Every scrap of metal must, therefore, have been imported into the country. Even if a new conquering race had brought a large quantity of metal with them, they must, after their settlement and dispersion over the Danish lands, have continually needed a fresh supply from abroad. In all probability, too, the supply must have come from afar. If the oldest culture stage of the Bronze Age in Denmark had borne the same stamp as that of Britain, or had originally travelled thither the same way, *i.e.* had either passed from Denmark to Britain or the reverse, the connection between those countries would have been apparent, and there would have been some evidence that the natives of Denmark in early times had fetched at least their tin from the British Isles, so rich in metals. It has, however, been shown that the culture of the first Bronze Age

in Britain is not only decidedly different from the Scandinavian, but also that it entered by quite another and more western route. It almost seems as though the free intercourse which existed between Denmark and North-western Europe during the Stone Age had been actually broken off by the advance of the Bronze Age. The Bronze Age must, therefore, have secured a good footing both in North Europe and in the British Isles before a closer trading connection could have been opened between these countries. Neither from England, nor, still less, from Ireland, where copper mines were first discovered far later, could copper or the mixed metal bronze have then been carried direct to the North. Even at the beginning of the Christian era it is said of the Britons themselves, that "they used imported bronze," and that they had not much iron. In quite a contrary direction, to the east of the northern countries, there was, it is true, in mines known from remote times in the Ural mountains, on the frontiers between Europe and Asia, a considerable wealth of copper and gold. But it was a very long way from the Ural mountains to Denmark, the route passing through the interior of Russia, over immense tracts often covered with forests and but little inhabited. It was only later, when communication had been improved, that a closer intercourse became possible.

For a long time during the Bronze Age, at least until this new trading intercourse was formed, Denmark was obliged to procure bronze and gold through the same channels as the culture of the Bronze Age had previously come, that is to say through West Germany, by the old track of the amber trade of Jutland. These metals, brought from afar, must, therefore, have been extremely valuable in the remote North. Furs and cattle must have been insufficient as articles of barter with the neighbouring peoples to the south, for they were similarly situated, and were but the middlemen in this traffic. Undoubtedly it was with amber, which was constantly increasing in value in the south, that the

inhabitants of the Danish lands purchased their bronze and gold. The noticeable absence of amber in the finds of the Bronze Age in the North, in comparison with the large deposits found in the graves and bogs from the preceding Stone Age, is strikingly significant of the enormous increase in the exportation of amber from Denmark. Its value in trade depended then, even more than during the Stone Age, on its size, colour, and the amount of care displayed in its workmanship. But neither the profitable amber trade, nor even the influx of immigrating tribes well supplied with bronze and gold, is sufficient to explain the surprising wealth of metal which, during the whole of the Bronze Age, continued to prevail in the old Danish lands naturally so poor in metals. It would appear far more probable that improved and developed agriculture (including the cultivation of corn-crops), in the lands bordering on the Baltic, and the prosperity thus produced, had also a share in facilitating the acquisition of the foreign metals.

It seems highly probable that, in a land so poor in metals as Denmark was during the transition from the Stone Age to the Bronze Age, implements, and to a certain extent weapons also, of stone, were used at the same time with the more valuable objects in bronze. This seems, however, to have been the case chiefly among the lower and poorer classes of the people, and generally in remote districts. For, almost all the larger finds of bronze objects (which evidently belonged to prosperous or wealthy people), whether buried in the graves or deposited in bogs or fields, from the earliest period of the Bronze Age, contain almost exclusively metal objects; at most, a solitary stone object of some peculiar destination appearing among them. In the same manner, bronze objects are extremely rare among the finds of stone objects that date from the later period of the Stone Age. A no less marked difference exists, in both the outward and the inward form, between the graves of the Stone and those of the Bronze Age. In the

Stone Age the graves consisted of low, round or oblong mounds, surrounded with large stones, and containing considerable chambers, the roofing-stones of which generally projected above the mound of earth. Some stone chambers, it is true, and these are generally the largest of the "giants' chambers" (Jættestuer), are found completely covered by enormous mounds of earth. But it is doubtful if this large mass of earth, at least in many cases, has not been placed there at a later period, in the Bronze Age, when the mounds over the old stone chambers and stone cists were often used for burial places. It is at any rate certain that the construction of the tumuli or grave mounds, often surrounded with stones at the base, was peculiar to the Bronze Age from its very beginning, and that the majority of the numerous mounds of that kind in Denmark date from that time.

In the internal construction of the graves at a later period a remarkable change took place, and, as it appears, very suddenly. The stone chambers, and especially the giants' chambers, were no longer constructed. Instead of them appeared in the tumuli smaller cists of stone or wood, generally adapted to contain but a single body. In this respect the new burial customs formed an obvious contrast to the preceding ones, when the people of the Stone Age often buried many bodies in the same stone chamber, indeed, so many, that some of the large giants' chambers were literally filled with skeletons.

There can be little doubt that these differences in the forms of the graves and the manner of interment must have had their origin in a complete change in the religious ideas, or at any rate in considerable and strongly marked differences. Many other and even greater distinctions between the latest Stone Age and the earliest Bronze Age are also clearly perceptible in matters of every-day life. Everything indicates a considerable change in culture and the general state of society, which cannot, at that period, have been produced by the introduction of metals

alone. The radical cause of this change must rather be found in the fact that a new dominating race, with a higher culture and better weapons and implements, had taken possession of the land, and, by degrees, had extended its power on all sides. The innumerable bronze weapons which, through researches chiefly confined to the present century, have come to light in Denmark, indicate clearly that they belonged to a well-armed and able race of warriors. Along the whole of this presumed track of immigration, from Asia, through the valley of the Danube and West Germany, to the frontiers of Denmark, numerous finds of weapons of the Bronze Age reveal a constant state of warfare during the progress to the North.

In any case it is incredible that the people of the Stone Age should have been entirely destroyed or expelled by the pressure of the new tribes. Doubtless, as in the case of the invasions of the Romans, Franks, Anglo-Saxons, and Normans in Western Europe, the greater part of the indigenous race remained in Denmark; only those who scorned to play an inferior part, where they had formerly been masters, found this a favourable opportunity to seek a new dwelling-place, and thus advance the colonisation of the great Scandinavian peninsula higher northwards than it had previously attained.

Some extremely fortunate finds have given us an unusually clear representation of the weapons, clothes, and general equipment both of men and women in the remote period of the Bronze Age.

Their excellent state of preservation, particularly of the garments woven in wool, is due to the circumstance that the bodies, completely dressed, were frequently buried in the tumuli, not only in cists formed of stone, but also in coffins made of the trunk of an oak tree split in two and hollowed out. The one half (Fig. 37*a*) formed the coffin itself, the other half (Fig. 37*b*) served as a cover or lid. Oak coffins exactly similar, and also belonging to the Bronze Age, have been discovered in North Germany and England.

The coffin was to a certain extent closed by the lid, which,

FIG. 37*a*.

FIG. 37*b*.

however, could not entirely exclude the damp of the surround-

ing earth. Thus the tannin in the oak was set free, and penetrating the clothes, preserved them from decay.

The remarkable discovery at Treenhöi near Vamdrup, near Kolding in Jutland, merits particular attention, as it is a characteristic one and explains many others. Amongst the contents was a curious hemispherically shaped cap (Fig. 38) such as has often been found in these coffins. This cap consists of pieces of woollen material closely woven and sewn together; on the inner side they are very carefully and accurately united, and on the outer side ornamented with woollen threads inserted in the stuff and terminating in knots. Caps exactly corresponding to these are still worn at the present day by shepherds in Hungary. Besides this elegantly worked cap, which had been on the head of the corpse, there was also a simpler one composed of several pieces of woollen stuff sewn together (Fig. 39). It lay close to the right foot of the body, enclosed in a little wooden box (Fig. 40), which was again put into a larger box (Fig. 41) also of wood. Both boxes were made of thin plates of wood (ash?) bound together with twigs. Probably the intention was to provide the deceased with a cap in reserve, for use on the long and wearisome journey which, according to the general belief in those remote ages, every dead man had to perform before he reached the other world. For further protection on the journey there was a cloak (Fig. 42) of a coarse, woven woollen material. On the outer side hung innumerable tags of wool, which completely covered it, and made it look like a sort of rough coarse plush. Two pieces of a woollen shawl with a fringe (Fig. 43) were probably intended to cover the upper part of the body under the cloak. On the loins was a woollen shirt ending in a point, and held together by a striped band or belt trimmed with a fringe (Fig. 44). There was not the slightest trace of any covering, whether bandage or trousers, for the legs. The feet, on the contrary, seem to have been enveloped in woven strips of wool (Fig. 45),

FIGS. 38–47

and also to have been provided with a kind of leathern sandal.

Inside the before-mentioned small wooden box was laid a beautiful horn comb (Fig. 46) and a little bronze knife (Fig. 47). On the left side of the corpse, under the cloak, lay a bronze sword in a wooden sheath (Fig. 48). The hilt, which ends in an oval bronze button, is ornamented in the centre with rings of bronze and horn. The sheath is formed of wooden laths, lined with deer-skin, the hair being turned inwards towards the blade.

The whole of the deposit in the grave was wrapped up in a large deer-skin, which, to judge from other finds, no doubt had served as the warrior's outer cloak. It is clear that in the cold climate of the North it was not possible at once to abandon the clothing of skins so prevalent in the Stone Age; even though a more advanced culture, improvement in the art of weaving, and, above all, greatly increased sheep-breeding, had made it possible to produce various sorts of garments of woven woollen materials. In an oak coffin in Slesvig was found a deer-skin with fragments of the horns adhering to it. As such horns, from the remotest antiquity to the present day—among tribes still existing in Asia and America—have been a characteristic head-ornament for gods and powerful chiefs, it is not improbable that the chiefs of the Bronze Age also used over-cloaks of deer-skin with the horns still attached as a sign of rank and dignity.

In almost all the men's graves of the earlier Bronze Age containing unburnt bodies, whether in oak or stone coffins, as in the case of the tomb in Vamdrup, there are found distinct traces of a highly developed martial accoutrement. The swords, in particular, are skilfully cast, sometimes elegantly ornamented, and provided with beautifully inlaid metal hilts. Some of these (Figs. 48, 49, 50) represent forms which can be traced through Germany and Hungary, and therefore must have had a foreign origin. Others, and these are the most numerous and finest,

are of forms which are confined to Northern and North-western Germany, and to the North itself (Figs. 51-53). They evidently belong to a particular North European group of the Bronze Age, which, as far as concerns the earlier Bronze Age, differs materially from the West European Bronze Age, and appears

FIG. 49. (⅛)

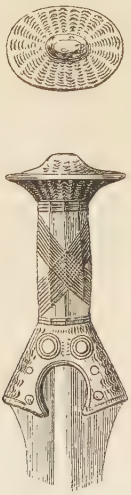

FIG. 50. (⅓)

also to differ in many respects from that of Eastern and Southern Europe. By the side of the characteristic differences, however, certain resemblances are found. For instance, between Greek and Northern antiquities of bronze—evidently in consequence of their joint origin from a common source, and of

FIG. 51. (1/2.)

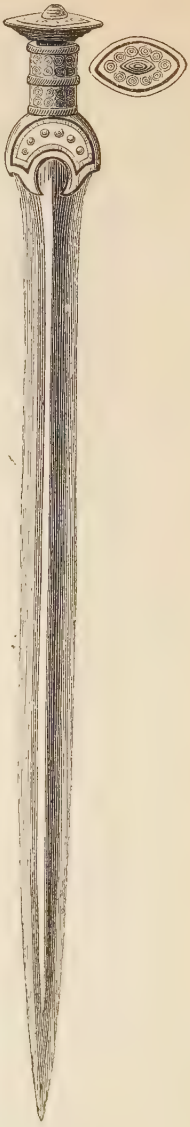

FIG. 52. (1/2.)

the continued influence of their mother country, Asia, upon them both. A most conspicuous difference between the antiquities from the Bronze Age in Northern as compared with

FIG. 53 ($\frac{1}{4}$)

FIG. 54. ($\frac{1}{4}$)

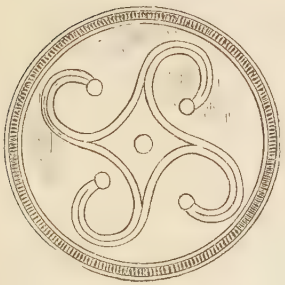

FIG. 55. ($\frac{1}{4}$)

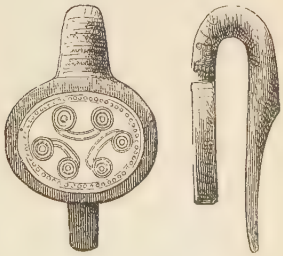

FIG. 56. ($\frac{1}{2}$)

those in Western Europe, is, that in France and the British Islands none of the elegant metal sword-hilts have been found, or of the spiral and half-moon-shaped ornaments and symbols which

in the North so frequently appear on the swords and on the bronze buttons attached to the sword-belts (Figs. 54-56). A similar richly varied ornamentation, which also includes concentric rings, zigzags, triangles, &c., is employed on lance-heads or spears (Figs. 57, 58), on axes, and on the axe or chisel-shaped "Paalstabs" (a kind of flat chisel which was intended to be inserted in a wooden haft) (Fig. 59), on the so-called "socketed

FIG. 57. ($\frac{1}{3}$.)

FIG. 58 ($\frac{1}{3}$.)

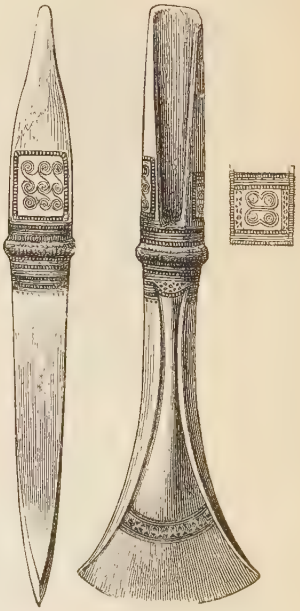

FIG. 59. ($\frac{1}{3}$).

celts," (Fig. 60) in which the haft was inserted; and also on several other weapons, implements, and ornaments from the earlier Bronze Age.

The bronze antiquities of the North not only exceed those of Western Europe in the beauty of their forms and ornamentation, but also, like those of Greece, are remarkable for being richly adorned with plates of gold. These plates are found on

swords, sword-buttons (Fig. 56), shields, and on the lower part of a bronze helmet here represented (Fig. 61), the upper part of which, unfortunately, is missing. The raised bars seem to have been intended to protect the face.

A remarkable and probably contemporary parallel to the before mentioned male dress from Vamdrup, is a female costume on a well-preserved unburnt body found in an oak coffin at Borum, in the neighbourhood of Aarhus, Jutland.

In this grave there was no sign of any cap. The hair, of which one long, dark lock still remained, was held together by

Fig. 60. ($\frac{1}{3}$.)

Fig. 61. ($\frac{1}{4}$.)

an artistically made net of woollen threads, the ends of which served to tie it under the chin (Fig. 62). To the commoner extra cap in the wooden box in the man's grave, a second and coarser net corresponds, knitted of different sorts of woollen threads, but now much damaged. Possibly it may have been placed in the box, made of wood or shavings, which was found in the grave. In the Borum coffin a horn comb was also found, used to hold up the hair, and ornamented with triangles and curves in open work (Fig. 63). Like the man's body

found at Vamdrup, this female body was enveloped in a deer-skin with the hair turned outwards. The careful manner in which the deer-skin has been prepared, leads to the supposition that it may have been used as an over-cloak. Under this a kind of cloak or jacket seems to have been worn, made of coarsely woven wool mingled with deer hair. The shape is no longer recognisable. Fragments of a woollen waistband, sewn together in the centre, are said to have been found with the cloak.

The rest of the dress consisted of a rather threadbare jacket, with sleeves made of one piece, of a woollen material woven and sewn together (Fig. 64), having below a border or trimming of four strips also sewn together. The dress is completed by a long woollen shirt, woven and sewn together (Fig. 65), which, like the jacket, was kept on the body by a waistband with pendent tassels (Figs. 66*a* and 66*b*). The band is artistically worked in three stripes, of which the centre one is lighter than the others. The tassels are formed of a thick fringe made of coarse wool and deer hairs twisted and spun together.

The ornaments consisted of a head or neck-ring (Fig. 67), a clasp to the jacket (Fig. 68), two bracelets for the wrists, and a couple of spiral rings for the fingers (Fig. 69).

Of incomparably greater interest, as a proof that arms or weapons formed a part of the equipment of the women of that period, is the bronze dagger found lying in the coffin; its hilt, inlaid with horn, ends in a bronze button decorated with spiral ornaments (Fig. 70). One large and two small bronze plates, with projecting points in the centre, have been supposed to be the centrepieces and ornaments of a shield. But that they really were intended to ornament a shield is not certain. The largest plate is beautifully ornamented with spirals and concentric rings. In the centre of the coffin stood an earthen vessel (Fig. 72), which on the sides has two knobs perforated with small holes. In several other similar oak coffins

of this period wooden bowls with handles have been found, (cf. Fig. 73), having pins of tin inserted as ornamentation. On the bottom is a figure of a deep black colour, shaped like a sun or star, which seems to have been produced by burning.

Fig 73*a*. (¼.)

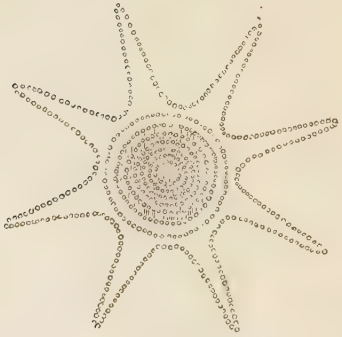

Fig. 73*b*.

The contents of this extremely interesting grave corresponds in most particulars with the contents of various oak and stone coffins found in different parts of Denmark. Hitherto archæologists had hesitated to acknowledge these coffins as those of

females, on account of the bronze daggers and supposed shield-ornaments found therein, as also because the bodies were in such a decayed state that the sex was undistinguishable. These

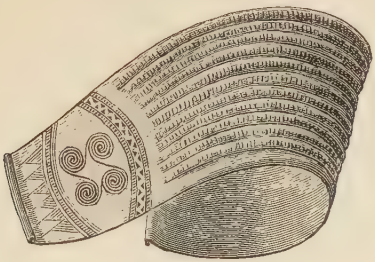

FIG. 74 ($\frac{1}{3}$.)

FIG. 75. ($\frac{1}{3}$.)

graves, however, did not contain swords or larger weapons, as was the case with the men's graves.

Another important distinction is that these graves not only contain daggers and "shield-plates," but also a peculiar kind of

diadem (Fig. 74) or breast-plate (Fig. 75), adorned with spirals and other ornamentation; large spiral arm-rings (Fig. 76), various kinds of bracelets and finger-rings, belt-ornaments, and similar trinkets belonging to the full dress of women. As was the case in the men's graves, several of these objects are of gold (cf.

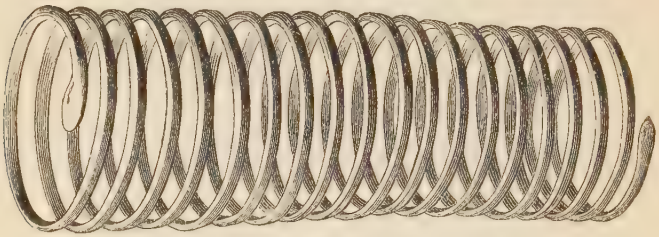

Fig. 76. ($\frac{1}{4}$)

Fig. 77), or decorated with gold plates. Sometimes, also, small glass beads have been found, usually of a bluish colour.

The same unmistakable difference which is seen between the equipment of the men and the women, in the graves of the earlier

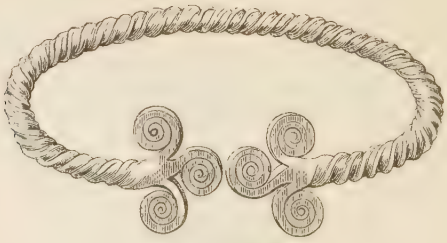

Fig. 77 ($\frac{2}{3}$)

Bronze Age, appears also in the finds of antiquities of the same period discovered in the bogs and fields. It is only quite exceptionally that both sorts of equipments are found mingled, and still rarer is it that the find consists of a mixture of objects from the earlier and the later Bronze Age.

The finds, which are continually increasing in number, are buried, like the deposits of the preceding Stone Age, in bogs and fields, with so much regularity and care that in the majority of cases it is impossible that they can have been temporarily concealed or simply lost by some unfortunate accident.

It is strikingly characteristic of these finds, both those of the Stone and those of the Bronze Age, that the objects intentionally deposited in bogs and under large stones in fields are often

Fig. 78. (½)

larger, and their workmanship and ornamentation more beautiful, than is the case with corresponding objects buried in graves. In the female equipments this is especially the case with the "shield-plates" before described –a splendid specimen of which is given in Fig. 78. Among the men's equipments are frequently found admirable swords, and, in particular, massive, extremely heavy bronze axes (Figs. 79, 80), which, to judge from their ornamentation, their awkwardly placed handles,

and their weight, could scarcely have been employed as weapons, or indeed for any practical purpose.

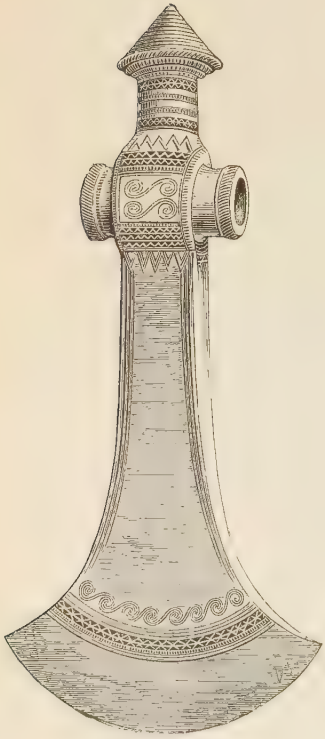

FIG. 79. (¼)

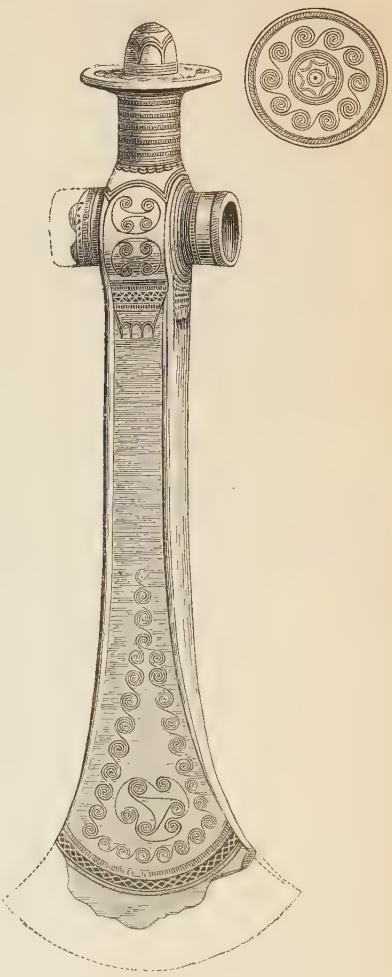

FIG. 80. (¼)

This entitles us to believe that the deposits in bogs and fields, according to ancient customs, have had a religious

destination—both men and women offering their best treasures to the gods. Not only was the increasing prosperity accompanied with richer offerings to the gods, but the new immigrants evidently brought with them a higher and foreign culture, and, as was the case in other lands, a fuller development of the religious ideas and of the ceremonies employed in the worship of the gods. This is shown during the whole of the Bronze Age by the increasing employment of certain sacred signs and other symbolical representations of different divinities. The sacred signs and symbols are for the most part the same as those employed in more southern lands, nay, even in the interior of Asia. In Denmark they are found both on foreign objects imported by trade, and on objects which, from their form, workmanship, and appearance, evidently belong to the North. Several finds in Denmark clearly prove the existence of a considerably advanced native bronze manufacture even in the earlier Bronze Age; for instance, at Smörumövre, not far from Copenhagen, was discovered a stock of nearly two hundred half finished and wholly finished cast bronze objects. The symbols before referred to, and which generally occupy a prominent place, are found not only on smaller objects, and on blocks of stone inside and outside the graves, but also on large flat surfaces of rocks, which clearly indicates their religious signification.

As has been already remarked, the ornamentation peculiar to the first Bronze Age in Denmark is almost entirely wanting in Western Europe, for instance in France and the British Islands. The same is the case with most of the Danish sacred signs and symbols belonging to the same period. This circumstance indicates a certain connection between these signs and the ornamentation, and also their common origin in the East, especially when we recollect their close resemblance in form. The sacred signs or symbols for the great phenomena of nature, the sun, the moon, lightning, and fire, and for the gods and goddesses connected with them, appear to have formed in Asia and

Egypt the foundation of the ornamentation of the Bronze Age. In consequence of this close connection with religious ideas, the ornaments, not to speak of the symbolical signs, maintained themselves unchanged long after the immigration into Europe. Among several nations in Asia, particularly in India, there are clear proofs that both the ornamentation and the industrial development, from the remotest antiquity have had a religious origin. Of the sacred symbols unmistakably originating in Asia, as far as we know at present, only two were known in the later Stone Age, viz., the ring-cross (Fig. 29) as a symbol for the sun, and the circle or cup-shaped hollow (Fig. 30), probably more or less an emblem of fertility and of the moon.

The same signs are maintained in the Bronze Age, but in connection with many others. A very remarkable and instructive collection of these signs is found on a large bronze trumpet or horn (Fig. 81) which was discovered in a bog at Wismar in Mecklenburg, on the coast of the Baltic not far from the southern frontier of Denmark. To judge from the numerous symbolical signs and ornaments, the horn must have represented some of the principal ideas of the then existing religion. Like similar horns of a later period, this was probably used as a trumpet in the worship of the gods. The symbols for the sun are particularly predominant. By the side of the common ring-cross is seen the wheel-cross or the wheel, a symbol of the carriage with horses, on which, according to the most ancient belief in Asia and Europe, the sun was supposed to drive through the sky. Therefore the horse was specially dedicated to the god of the sun. The ring-cross was sometimes employed indiscriminately with the wheel-cross to indicate the wheels of the sun-carriage. From these favourite sun-symbols were formed special sacred signs for the very highest divinities, all of whom were supposed to be connected with, or even to live in, the sun.

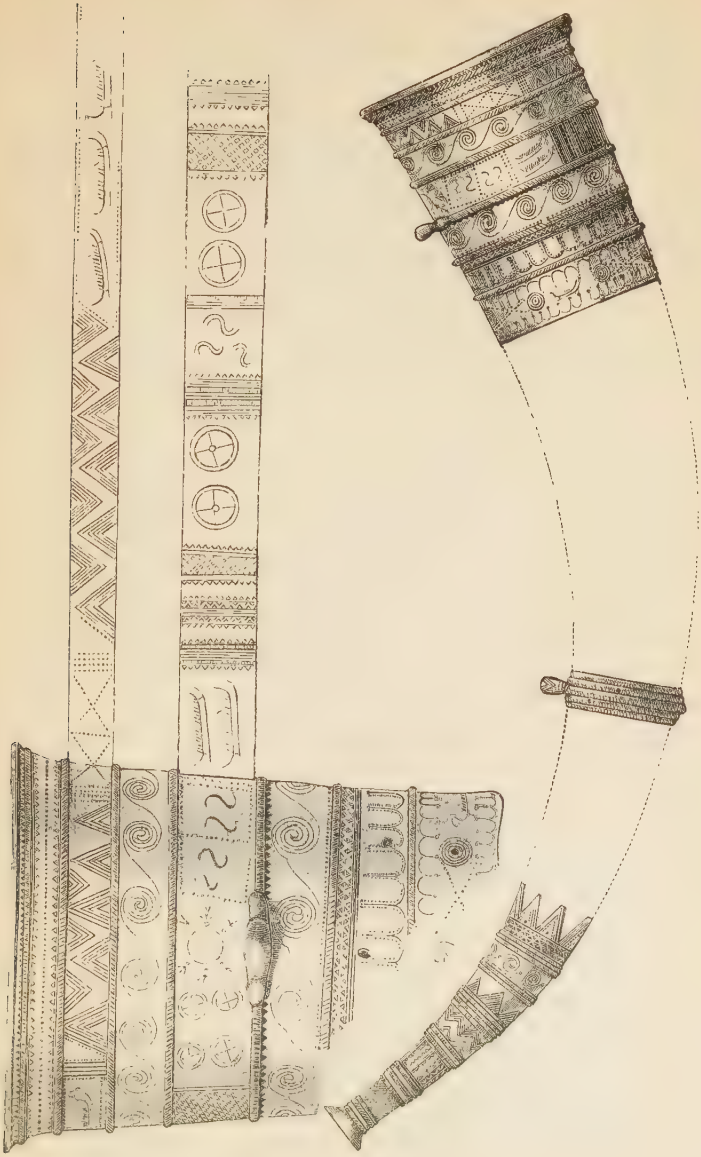

FIG. 81*a*. ($\frac{2}{7}$.)

The simple crosses (Fig. 82) became signs for the sun-god himself; the cross camponée or "swastika" (Fig. 83) for the highest god; the three-armed cross or "triskele" (Fig. 84) for another of the principal gods of the triad or trinity, which was an article of belief with almost all the cultivated races of antiquity, and finally the stars (Fig. 85) became emblems of the sun itself, or of the large heavenly bodies. Of these straight-armed signs, however, only the simple crosses and stars (Figs. 82 and 85) reached Denmark during the Bronze Age. The signs then generally used in Denmark, corresponding to Figs. 83 and 84, had a somewhat different form, and even a

SUN SIGNS.

Fig. 81*b*. Fig. 82. Fig. 83. Fig. 84. Fig. 85.

different origin. But this origin, too, can be traced back to an old and common symbol of the sun.

Besides the ring-cross and the wheel, several S-formed figures are represented in separate groups on the Wismar horn, and similar figures are found on many antiquities, coins, and relics from very ancient times, both in Europe and Asia, while in India they are still used as sacred signs.[1] They are undoubtedly sun-snakes, which, as is well known, played an important part as the symbols of fertility in the Asiatic and in the ancient Egyptian symbolism; partly, as they thought, because the sun's

[1] Moor, *The Hindu Pantheon*. London, 1810. 4to. Tab. 26; Tab. 43, Fig. 4; Tab. 84 and 85, Fig. 3. The sign frequently occurs on the Lingam, with which the serpent is specially connected.

path through the heavens formed a curve in the form of a snake, partly because lightning, or the heavenly fertilising fire, flashed upon the earth in a snake-like zigzag. There can scarcely be any doubt that this sun-snake figure was the origin of the spiral ornaments which were so popular at an ancient period of the Bronze Age, coming from Asia and Egypt to Greece and Central Europe, and thence to the North. In some few cases the S signs are represented with spiral-formed ends, assuming a decided and accurate spiral form, as on the great axes represented in Fig 79. The zigzag ornaments are also very frequent on the Wismar horn ; where they distinctly resemble a curved snake, or at any rate lightning.

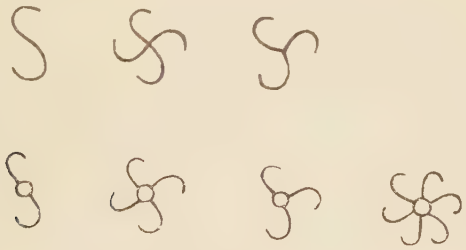

FIG. 86. The sun-snake. FIG. 87. The "swastika." FIG. 88. The "triskele." FIG. 89. The star.

There can still less be any doubt that the sun-snake sign S is repeated in the peculiar curved forms of the swastika (Fig. 87), and of the triskele (Fig. 88), which, more or less ornamentally treated, were the signs commonly used for the sun-gods during the whole of the northern Bronze Age. (See the swastika in Figs. 54, 55, 74, and the triskele Figs. 56, 80.) In corroboration of the close connection of these signs with the sun, we may add, that, particularly in the southern countries, they sometimes have a ring or sun in the centre. If it be taken for granted that the S or sun-snake has a special reference to the fire in the sun, or to lightning, it is easy to understand that

the swastika (Fig. 87), composed of two such S signs connected together, might become a special sign for the highest divinity, who, like Zeus or Jupiter in the south and Thor in the north, was represented holding the lightning in his hand.

Another symbol of the sun, found several times on the Wismar horn, is a ship. In the East, particularly in Egypt and the lands influenced by Egyptian culture, among a great diversity of figurative representations of the sun, we find it depicted as sailing over the sky in a ship or boat. A stone scarabeus (Fig. 90) has been found in Cyprus, on which a ship containing the disc of the sun, supported by two Uræus snakes, hovers over the sacred flowers. Above the

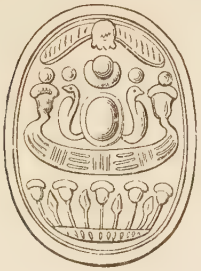

Fig. 90.

Fig. 91.

ship is seen the united sign for the sun and moon, and above the whole a winged sun. Another scarabeus found there (Fig. 91) represents a ship with birds at the prow and stern to indicate that it is flying through the air; three sun-gods are sailing in the ship, each with a sun disc on his head.

Similar sun-ships can be traced as symbols on antiquities and coins, from the coasts of the Mediterranean up to the North, though they seem to have still been rare there in the earlier Bronze Age. It is not until the later Bronze Age that they are commonly employed as a symbolical sign, both upon very small

antiquities and upon large rock surfaces, and also as motifs for a peculiar series of new ornaments.

Among the many signs for the sun on the broadest part of the Wismar horn, and placed among the spiral ornaments, is found a large disc surrounded by rays, undoubtedly a rather primitive representation of the sun. It is possible that the half-moon-shaped cross-lines on the rays may refer to the moon, as is the case on other antiquities. Separated from this division of the surface of the horn, mingled with ornaments in the shape of bows or half-moons, there are some concentric rings, which here are doubtless intended to symbolise the moon. This planet was not only represented by a half-moon, but in some cases by a ring or rings, often with a dot at the centre.

Corresponding concentric rings form the ends of the half-moon-shaped sign for the moon on the sword-hilt (Fig. 53), on Fig. 56, and in the square border of the Paalstab (Fig. 59). From these concentric rings originated a very peculiar ring-ornament of frequent occurrence in the Bronze Ages. A distinct half-moon between spirals and half-moon-shaped patterns may be seen on the admirable diadem (Fig. 75). The great bronze axe (Fig. 80) is adorned below with the triskele, surrounded by spirals, and above by four half-moons, of which the points or horns are spirally twisted.[1]

It can scarcely be accidental that the most beautiful objects which were deposited in the graves or in the bogs and fields, and which must be considered to have been votive offerings to the gods, were decorated with symbols of the sun and moon and with the ornaments derived from them. Indeed, no other ornaments than those which take their origin from the sacred signs are known in the earlier Bronze Age. Nothing but a religious belief could restrain within such narrow limits, and for so long a time, the ornamentation adopted by the comparatively advanced

[1] A similar snake-like sign for the half-moon and an ornament based upon it were for a long period in general use in many countries of Europe.

industry of the Bronze Age. With much greater distinctness and power than had been manifested in the Stone Age, a remarkable development of the worship of the sun, moon, and lightning, owing its origin to the East, made its appearance in Northern Europe and Denmark early in the Bronze Age. At first these phenomena of nature were regarded and worshipped as divinities. Later the popular superstition formed from them a whole series of personal gods and goddesses, who represented the different effects of the action of the principal powers of nature; each divinity being furnished with characteristic emblems. These attempts to represent the forms of the gods produced the first marked efforts both in painting and sculpture among the majority of the nations of the earth.

The existence of these representations of figures on the smaller objects of the earlier Bronze Age in Denmark has not as yet been proved with certainty; though many of the numerous representations found in the North, and especially in Scania, such as human beings, animals, ships, &c. which are carved on large stones, found outside and inside the graves, and on the flat surfaces of the rocks or "Heller," may possibly date from that time. The same may be said with reference to some rough phallic wooden images found in bogs, which doubtless, like similar figures in other lands, have served as idols.

It is, however, certain that representations of figures, though very primitive, appear at the very commencement of the later Bronze Age, and, under the influence of new and foreign currents of culture, they constantly increased in numbers and in progressive development.

With the earlier Bronze Age a most remarkable period of the culture history of the North seems to spring out of the earth full of life and power. Written history contains not the slightest hint that, at least a thousand years before the Christian era and perhaps even earlier still, there existed on the western shores of the Baltic a culture which had in many respects

attained such a considerable development. In the earlier Bronze Age the forms and ornamentation of the objects in bronze and gold display a style which is more beautiful, simpler and more homogeneous but also less progressive, than that of the succeeding period.

As far as concerns the North, the earlier Bronze Age must be considered as the true and wholly unmixed Bronze period. Of the knowledge of iron or of its use in the North no trace appears in the numerous finds of metal. It is evidently a most ancient Asiatic bronze culture, which, like the preceding highly developed Stone Age culture, has had one of its latest strongholds in the remote ancient Danish lands.

For as yet the Bronze Age had made but little advance northwards. Only on the east coast of Sweden and the west coast of Norway has it left a few scattered memorials and antiquities from its first period, or, rather, from the end of it. The interior of the Scandinavian peninsula, north of the great lakes, including Norway and the northern part of what is now Sweden, does not then appear to have been completely inhabited. The inhabitants belonging to the scanty settled population, which doubtless had been driven northwards by the new culture and the people of the Bronze Age, still lived under a highly developed Stone Age which lasted long after; and it is probable that these people on account of the unfavourable state of their surroundings supported themselves chiefly by hunting and fishing.

In the extreme North, in Finland and in Lapland, among the Finns and Lapps, who came from the north of Russia and Siberia, the state of culture was of the same primitive kind as in the older Stone Age in Denmark.

A corresponding contemporary difference in culture between northern and southern districts not widely separated from each other is distinguishable in other countries of Europe. Thus, in the British Islands a Bronze Age was solidly established in the south of England long before the knowledge of metals and the

higher culture accompanying it had extended to the north of England, to Scotland, and the still more remote groups of islands, the Hebrides, the Orkney and Shetland Islands. There too, the further to the north, the thinner was the population and the lower the grade of civilization.

II.

THE LATER BRONZE AGE.

During a period of several centuries (between 1000 to 500 years before Christ) the first Bronze Age in Denmark maintained with a remarkable tenacity its peculiar culture in the same forms, and, to a great extent, with the same limited intercourse with other countries. But, by degrees, as foreign communication extended on all sides, and the bronze culture assumed a somewhat different form in southern lands, especially in Eastern and Central Europe, the bronze culture in Denmark inevitably followed the progressive development in the south.

The new stream of culture of the Bronze Age did not enter Denmark and the North as the first had done, merely in a western direction along the Rhine and the Elbe. It also followed an eastern course down the Oder or through what is now Prussia. The country there was cultivated and populated to a degree hitherto unknown in those parts. A great intercourse was carried on through morasses and forests formerly impassable, and over the great chains of mountains which bound Hungary on the north, and which long had formed an obstacle to direct communication between Hungary and the lands lying round the Baltic. In a like manner new roads for trade had been opened to the south, over the Alps and the Balkan mountains, between the inhabitants of Central Europe

and the much more civilized nations of the classic lands, Italy and Greece.

Under these circumstances it was a natural consequence that the lands of Central Europe, so rich both in copper and iron, could not maintain a pure and unmixed Bronze Age as long as did the remote lands adjacent to the North Sea and the Baltic. Nor on the other hand could they keep pace with the rapid culture development of the classic lands of the Mediterranean. In Greece and Italy both the pure Bronze Age and also the transition period between the Bronze and the Iron Ages were things of the past when Central Europe was still in the later Bronze Age, before the new metal, iron, had begun to make its way and struggle for the mastery with the more ancient metal, bronze. Strange to say, the people in many parts seem only with the greatest reluctance to have given up the use of the beautiful glittering metal, bronze, for weapons and tools, in exchange for the black, duller iron. Even in the classic lands the use of bronze was continued far into the Iron Age, it being considered to a certain degree sacred, as the material for votive offerings, both weapons and ornaments, dedicated to the gods, and for the equipment of the dead; and they were therefore deposited in the temples, in the graves, and in other places in the earth.

It is a characteristic of the later Bronze Age in Central Europe and the northern districts of Germany that corresponding objects in iron are often found mixed with bronze weapons and implements.

In consequence of the use of the new metal, of the national development, and of the intercourse with classic lands, an entirely new system of metal-working was introduced. In addition to casting formerly almost exclusively used, the forming of thin metal plates by hammering became customary, particularly in the fabrication of large metal vessels, the plates being sometimes fastened together with rivets and decorated with an ornamentation either hammered in or embossed

Soldering, which had hitherto been unknown, now began to be used. In the decoration also, far greater richness and variety was displayed, particularly in emblematical representations, and those of a religious nature, the use of the sacred signs being on the increase.

The most usual funeral custom was to burn the body, and to collect the remains into urns of burnt clay, which were buried in common burial-places, seldom in large grave-mounds. The articles in the graves generally consist of a few small objects, often votive offerings, models of weapons and tools. Incomparably more numerous and richer are the great finds of weapons, tools, and ornaments in the bogs and fields, where they are generally deposited with evident care.

After the decided testimony afforded by the antiquities it cannot for a moment be doubted that in the last period of the Bronze Age a strong influence from Central Europe set in westwards through France and Britain even as far as Ireland. But even stronger still was the current of influence towards the North and North-west, including the northern part of Germany, and the ancient Danish lands. It is not only that by trade many foreign bronze objects were imported from Central Europe into the North, where they served as models for a modified, or rather for a new style to the native population; but the striking correspondence between the culture of Central and Northern Germany, and that which existed far up into the North in the later Bronze Age, indicates a new influx of population, being accompanied by a new funeral custom, cremation, and constantly increasing deposits of votive offerings in bogs and fields. The march of the different tribes or races took place through the valley of the Danube, the old path of immigration from Asia to Central Europe, and continual struggles must have occurred in which some of the older established settlers were probably driven northwards by the advancing immigrants. An increase in the population of North

Germany would, in itself, have been enough to attract the new colonists by degrees over the Baltic to the Danish lands so advantageous to them in many respects, where there already existed a richly developed culture nearly connected with their own, and where there doubtless was room enough for a much larger population.

In spite, however, of the great resemblance between the later Bronze Age in Central Europe, and the same period in the districts adjacent to the Baltic, there is an important difference between them. For instance, the same objects which in Central Europe are sometimes found in connection with iron, in the Baltic lands appear almost exclusively in connection with other objects of bronze.

As a rule, any trace of iron is of the greatest rarity in finds which we know date from the later Bronze Age in the North. That the iron itself should have been destroyed by simply lying buried in the ground, is disproved by numberless finds of iron from the period immediately succeeding. That, on account of its great value, the owners should have omitted to bury it in the earth, seems scarcely probable, as so many other articles of great value were deposited beneath the soil. It appears rather, that from ancient times such a preference for bronze prevailed in the extreme North, that many bronze objects were brought in from the south, and also that iron was little esteemed. It seems as if some tumultuous commotion among the inhabitants of the interior of Europe, had for a time, at least, produced a pause in the former intercourse between Central Europe and the North. The absence of iron in the finds of the later Bronze Age, though that Age was strongly influenced by a rising iron culture, forms a striking parallel to the absence of bronze in the finds of the preceding later Stone Age, in which many signs of the influence of a bronze culture are to be traced. In any case it is a fact that the last remnants of the Bronze Age in the ancient Danish lands maintained their ground considerably

longer than they did in the majority of the other European lands, and that near the Baltic the later Bronze Age, like the culture periods which had preceded it, assumed a form which in several respects was peculiar to the North.

The antiquities of the later Bronze Age in Denmark reveal a greater mixture of different kinds of ornamentation than those of the earlier Bronze Age. But there is a certain nearly related religious element common to both Ages, combined with an astonishing richness and splendour, when compared with other countries.

The mere influence of culture from the south or the east, without any accompanying influx of population, would hardly have induced the warlike occupants of the North to change their funeral customs in every respect, and to such an extent. Naturally the old-fashioned interment of the unburnt body must have continued simultaneously with the more modern cremation. But that the latter custom at last generally prevailed is evident from the fact that in the grave-mounds smaller graves with burnt bodies are commonly deposited in the upper part of the mound, while the larger graves with unburnt bodies are found below. Independent graves with burnt bodies are moreover found throughout the North in great numbers. Comparatively speaking, the graves from the later Bronze Age are far more numerous in the Baltic lands and in Denmark than in the rest of Europe. The custom of cremation caused an important change in the interior of the graves. The fragments of charred bones collected from the funeral pile did not require such large coffins as did the unburnt bodies. It is true, burnt bones are sometimes found wrapped up in articles of clothing, of woven wool, and placed in full-length coffins, evidently belonging to the transition period; but as a rule the charred bones were deposited in small square stone cists, under heaps of small stones, or in urns of burnt clay (Figs. 92, 93). Now and then these urns are decorated with zigzag ornamentation (Fig. 94) and with other sacred signs,

such as the cross, the sign for the sun or the sun-god, the sacred tree of life, the sun-snake, the sun-horse, &c. (Fig. 95). The intention of these sacred signs was to call down the protection of the gods upon the deceased. When the bodies are burnt, the men's graves can only be distinguished from the women's by the articles deposited in them, which, as a rule, were not placed on

FIG 92. (¼.)

the funeral pile. Instead of the weapons and ornaments themselves, very small imitations of them were often deposited, in Denmark as in Central Europe, among the charred bones and ashes.

The weapons from the men's graves show a gradual change in their forms and ornaments. The sword (Fig. 96) is a specimen of the transition from the older to the later Bronze Age, while its form and ornamentation indicates a Scandinavian origin. On the pommel, pieces of amber are inserted of a sun-like shape, and in the grooves of the hilt was inlaid a resinous substance, which by the side of the gold-like bronze

looked like a sort of enamel. This was a favourite style of ornamentation during the later Bronze Age. The hilt of the

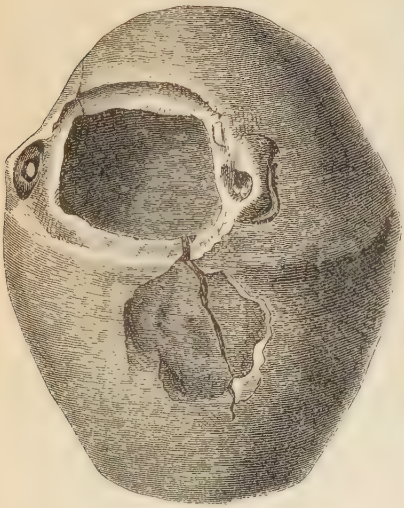

FIG. 93. (¼.)

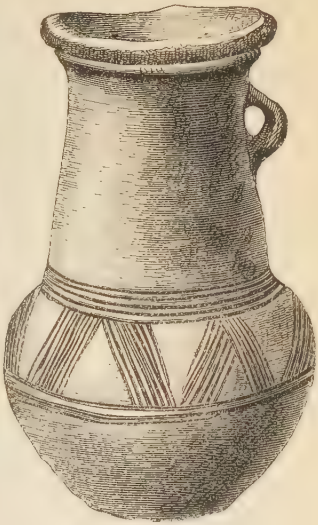

FIG. 94. (¼.)

shorter sword (Fig. 97) was decorated in the same manner, as were also those of a whole series of longer swords. The

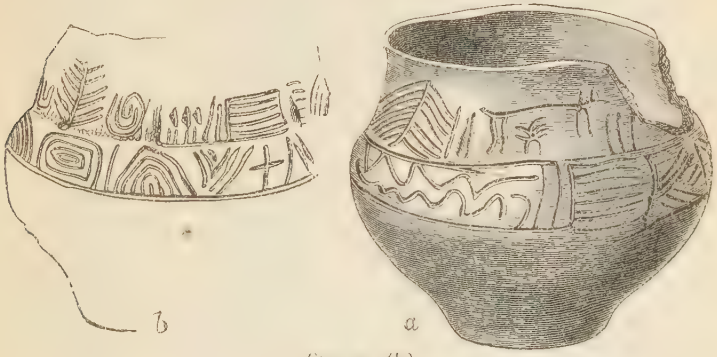

FIG. 95. (¼.)

sword-hilts were of bronze, horn, bone, or wood, generally with a knob at the end, and they were frequently plated

Fig. 96. ($\frac{1}{10}$)

Fig. 97. ($\frac{2}{15}$)

Fig. 98. ($\frac{1}{6}$)

Fig. 99. ($\frac{1}{7}$)

with gold, or had gold thread twisted round them for ornament. The spiral ornamentation previously in such favour, and so highly developed, diminishes in fulness and roundness, while the S sign, taking its origin, from the sun-snake, continually reappears under different forms. Instead of spiral ornaments, the concentric ring ornamentation becomes the most frequent; but the sun-snake and the half-moon are evidently the origin of the decoration on several of the sword-blades (Fig. 98)

Fig. 100. ($\frac{1}{3}$.)

Fig. 101. ($\frac{1}{5}$.)

Fig. 102. ($\frac{1}{3}$.)

In many of the graves of men, together with fragments of woven articles of clothing are found finger-rings and armlets of bronze or gold; the latter are generally made of gold thread wound round in a spiral form; sometimes, however, the armlets are of a more solid kind, of massive gold, of flat gold, or of gold plates bent over a bronze core.

The bronze weapons found in the graves, consist, in addition to swords, of lance-heads (Fig. 99), axes, paalstabs (Fig. 100),

celts (Fig. 101), and socketed celts (Fig. 102); they are however of other and less elegant forms than the corresponding ones of the first Bronze Age. Numerous moulds, both of stone and bronze (Figs. 103, 104), which have been discovered over the country, jets and runners (Fig. 105), and other remains from casting, prove clearly that the objects in question were manufactured in Denmark itself, even if the original models were of

Fig. 103. (⅓.)

Fig. 104. (⅓.)

Fig. 105. (⅓.)

foreign origin. Imported weapons are more rare in the graves than in the bogs and fields, where evidently they have often been purposely deposited. As in the preceding Age, not only do these finds in the bogs and fields contain the largest and handsomest articles of bronze and gold, but also the greatest number of such objects. Here again, as a rule, there is a marked

difference between the votive articles in the male and female deposits.

Some of the bronze swords (for instance, Figs. 106, 107) are evidently foreign weapons. They differ both in form and technical workmanship from the old northern swords, and are similar to those found in considerable numbers in more southern lands. The sword Fig. 107 resembles Fig. 108, which was probably of Scandinavian or North European manufacture, and a copy of a more southern type. Still more Scandinavian in form is the sword Fig. 109, of which the blade is so long and heavy, compared with the short hilt, that it cannot possibly have been used as a cutting, or even as a thrusting weapon. It is more probable that it had a religious or symbolical destination.

Some large bronze axes, found both in Denmark and Sweden, and which in their general form resemble the heavy axes from the older Bronze Age represented before (Figs. 79, 80), seem to be of a similar description.[1] They differ from them however in one respect, as they consist of a clay core over which a thin layer of metal has been cast, partially ornamented with gold. On account of the thinness of the metal they could not have been put to any practical use. The same is the case with a number of lance-heads (Fig. 110), the metal of which is strikingly thin, and which are sometimes ornamented with a sort of enamelling of resinous matter, as on the sword-hilts before described.

Something similar is also the case with several large shields, more commonly found in bogs, and consisting of metal thinly cast and embossed. On that here represented (Fig. 111) are seen double sun-ships, with the sun in the centre. The sun-ships which end in long-billed birds' heads, correspond to some extent

[1] Worsaae: *The Primeval Antiquities of Denmark*, London, 1849, p 39; *Nordiske Oldsager*, i det Kgl. Museum, Kjöbenhavn, 1859, Fig. 112.

FIG. 106. ($\frac{1}{6}$.)

FIG. 107. ($\frac{1}{6}$.)

FIG. 108. ($\frac{1}{6}$)

FIG. 109. ($\frac{1}{6}$.)

with the Egyptian air-ships with birds on the prow (Fig. 91). This representation, so constantly recurring in the North, may allude to the goose, a bird considered sacred in India and the East in general. This is confirmed by a bronze shield found in Holland, but no doubt imported from the south, which is decorated round the edge with a row of large, long-billed

Fig. 110. ($\frac{1}{6}$.)

Fig. 111. ($\frac{1}{6}$.)

birds' heads, evidently geese or swans.[1] Similar long-billed figures of geese are found, in combination with sun-signs and other symbols, on many works of the Bronze Age, and of the Iron Age immediately succeeding, and which certainly are of Danish workmanship.

[1] Montelius, *Sveriges Forntid*, Fig. 179.

Among the remarkable finds of large objects outside the graves, and which probably had a symbolical destination, must be mentioned the so-called bâtons of command, with handles of cast bronze, to which a broad dagger or knife-blade is generally fastened by three large rivets.[1] They are common to Scania, Holstein, Mecklenburg, and large tracts of Eastern Germany, where several have been brought to light deposited together. Similar bronze blades appear to have been fastened to wooden handles by large rivets.

Still oftener the bogs of Denmark contain large horns or trumpets, made entirely of bronze with pendent chains. Nothing exactly corresponding to them has, as yet, been discovered in other countries. They have been cast in several pieces, and with surprising skill are carefully fastened together by rivets which interlace each other (Figs. 112, 113, 114). Sometimes they have been buried in the bogs in a broken state ; but in general they are so well preserved that they can still be blown. They produce a dull and not very loud sound. On one occasion they have been found with a shield of bronze and a few bronze swords, hence their use in battle may be inferred. But generally several of them are found together, rarely less than two, and sometimes as many as six on the same spot. The use of the horns at the worship of their gods in the temples, as was the case with the Wismar horn (Fig. 81), formerly described, seems far from improbable.

It has been already observed that, as early as the time of the Stone Age, axes, spears, curved knives, &c., are often found buried in bogs and fields in rather large quantities, each sort by itself, undoubtedly placed there as offerings to the respective divinities of the sun and moon. In complete accordance with this theory the deposits of the Bronze Age are often found to consist exclusively, or at any rate chiefly, of swords, lance-heads, paalstabs or axes.

[1] *Sveriges Fornlid*, Fig. 131. A. W. Franks, Horæ Ferales, Pl. x. Figs. 1–7.

sickles, &c., in considerable numbers, and this division into distinct series is evidently made with intention.

Fig. 112. ($\frac{1}{4}$)

The large number of bronze weapons, though of somewhat different kinds, which are found in the men's graves and in the religious deposits in the earth probably offered by men, indicates,

at any rate, the existence of a warlike spirit, as much among the people of the later as those of the earlier Bronze Age. There is also every reason to suppose that through the whole

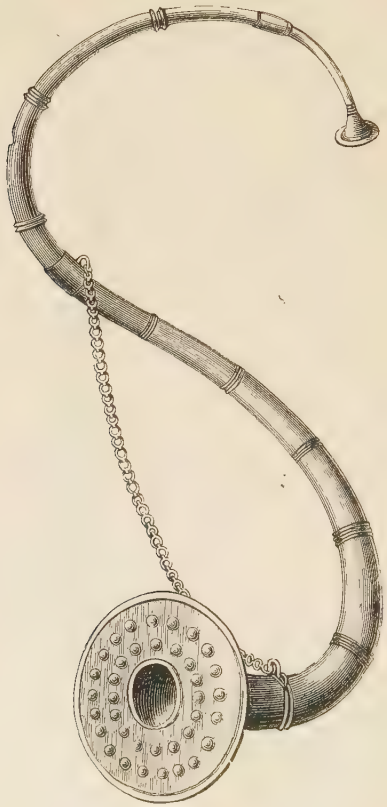

Fig. 113. (⅛.)

Bronze Age the women carried arms and wore daggers, as they had done in the earlier period of the Bronze Age. In some instances such daggers and other weapons were broken or bent

and placed above the burnt bones in the urns; but oftener small

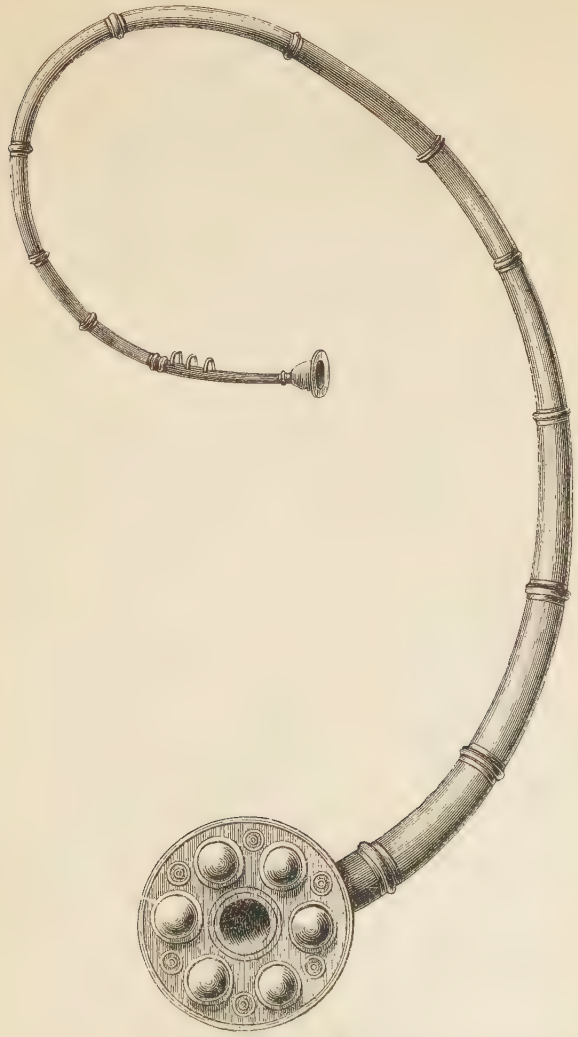

FIG. 114. (¼.)

imitations of swords and daggers are placed with the interments.

The women's graves are generally indicated by a number of smaller personal ornaments and useful articles of gold or bronze, often of bronze inlaid or plated with gold. As, however, many of

Fig 115. (⅔.)

the ornaments, more generally neck-rings, bracelets of gold (Fig. 115), finger-rings, combs (Fig. 116), brooches (Fig. 117), and large pins, seem to have been common to both men and women, the absence of the larger weapons in the graves must be considered the distinguishing sign between them.

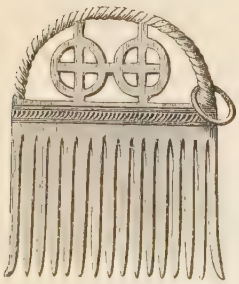

Fig. 116. (½.

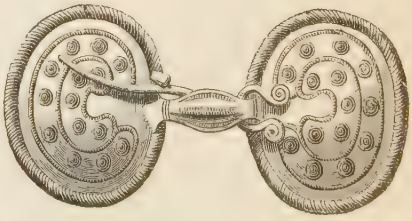

Fig. 117. (⅔.)

The objects most commonly found in the women's graves, both inside and outside the urns, consist of small articles belonging to their dress or used in its preparation. Most frequently

they are buttons, bodkins with handles of bronze, amber, or wood, pins or needles with eyes, tweezers, and knives. Though occasionally entirely of gold, they are more generally of bronze plated with gold, and in both cases are decorated with sacred signs and ornaments. Thus upon the button (Fig. 118) there is a triskele; on the button (Fig. 119) are seen several moon-signs united in the form of a cross, surrounded by an ornamental border of sun-snakes. Sun-signs and moon-signs, of the same kind as the sun-snakes and the half-moon-shaped ornaments on some of the sword-blades, are found along with three

Fig. 118. (⅔)

Fig. 119. (⅔)

suns or points placed together in a triangular form on the tweezers (Fig. 120). Three such points forming a triangle were very early used in the North and elsewhere to signify the divine trinity. Another pair of tweezers (Fig. 121) displays a triskele beneath snake windings and triangular ornaments. In the centre of the tweezers (Fig. 122) is a concentric ring, possibly the moon, also surrounded by triangular ornaments. Still richer religious representations are placed on one of the sides of the small bronze knives, which terminate in twisted spirals or snakes. These knives are

quite peculiar to the North-western extremity of Germany, the old Danish lands, and Scandinavia in general. The sun-ships, to which

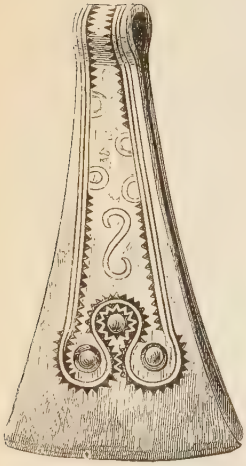

Fig. 120. (¼)

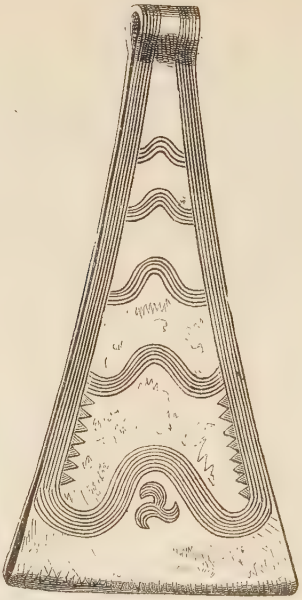

Fig. 121. (⅓)

Fig. 122. (¼)

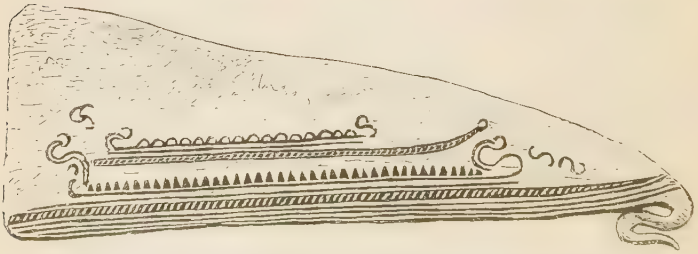

Fig. 123. (¼)

also horses, those of the sun, are added, play a prominent part upon them. Behind two such ships (Fig. 123) stands the triskele,

FIG. 124 ($\frac{2}{3}$)

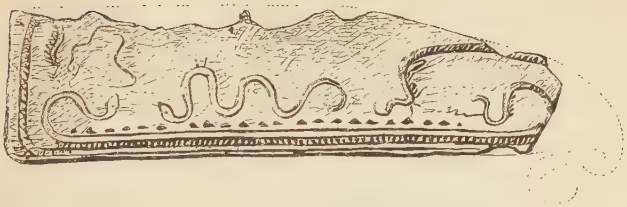

FIG. 125. ($\frac{1}{4}$)

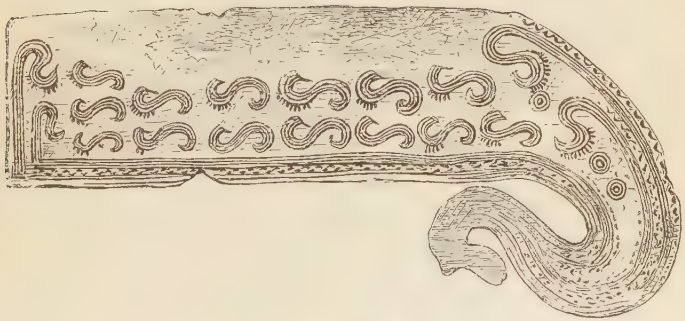

FIG. 12. ($\frac{2}{3}$)

FIG. 127. ($\frac{2}{3}$)

and before them two sun-snakes. Larger and smaller snake figures fill up and surround the sun-ships on Figs. 124, 125, and 126. On the knife (Fig. 127) a ship containing four snakes has on the one side a triskele, and on the other a beaming sun, a decided proof of the connection of the ships with the worship of the sun. Similar beaming suns and smaller rings with a point in the centre, probably moons, are represented with ships on the other knives (Figs. 128, 129).

In the centre of one of the ships (Fig. 128) a large axe or half-moon-shaped sign stands erect. Birds are seen on both these knives, doubtless the sacred geese before mentioned. Between the bird-figure and the sun, above the sun-ship in Fig. 129, as well as behind the sun-ship in Fig. 130, a fish is represented, undoubtedly another of the many symbols in ancient times for the fertilising sun. To this very day in the East the fish is a religious symbol, principally having reference to fruitfulness or fertility, and sacred to domestic happiness.

The most remarkable and most instructive of all the numerous representations of ships on these small bronze knives, found in the women's graves, are incomparably those containing figures of human beings, or rather of gods in human shape. On a knife lately found in Jutland is seen a ship (Fig. 131), in which are sitting two men, ornamented with horns, each with a large, broad-bladed axe in his hand. This is evidently a representation of the god of thunder in the sun-ship. The horns indicate his high dignity, and the axes, which in shape perfectly correspond to the well-known broad bronze axes of the bog-finds, are, as usual in ancient times, emblems of the lightning and its divinity. Before the ship stands a man, or the sun-god, surrounded with snakes. At the narrower twisted snake-shaped end of the knife snakes are seen placed over a concentric ring without rays, which no doubt is here a sign for the moon. On another knife (Fig. 132), two men with rays around their heads are sailing in a ship, the prow of which ends in curved snakes.

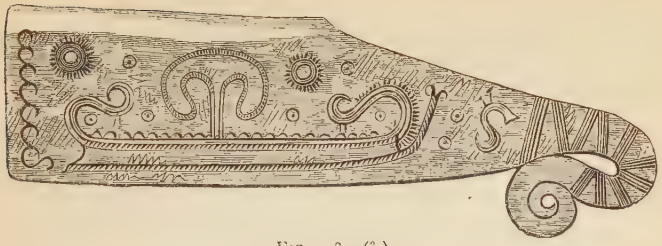

FIG. 128 ($\frac{2}{3}$)

FIG. 129. ($\frac{1}{4}$)

FIG. 130. ($\frac{1}{4}$)

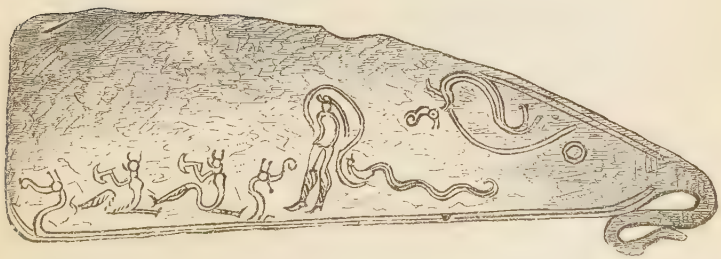

FIG. 131. ($\frac{1}{4}$)

These sun-ships with images of gods not only remind us of the Egyptian sun-ships represented above (Figs. 90, 91), but they also closely correspond to contemporary carvings on the rocks or "Heller," in Scandinavia.

Other religious symbols and figures of gods are also found on differently shaped bronze knives taken from graves, viz. the ring-cross (Fig. 133), the wheel, the goose, the ship, the snake, the triangle, the zigzag, and the moon. The handles of two knives found in Holstein on the southern frontiers of Slesvig are formed by female figures which, from their equipment, must be goddesses (Fig. 134). With the exception of a short skirt over the loins they are naked, which, from the testimony of the graves, it is

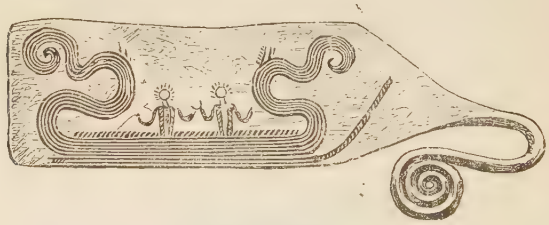

Fig 132. ($\frac{2}{3}$)

evident was not the usual custom with the women of that period. As a sign of their dignity their necks, ears, arms, and bodies are richly adorned with rings, and they carry in their hands a vase, which in ancient times was almost universally considered as the emblem of fertility. A close connection between these female figures and the sun, as the source of all fertility, is indicated by the sun-ship represented on the blade of the knife. Corresponding figures, with exactly similar heads, having rings in the ears and round the necks, are found on several knives and pins which are decorated with sun-ships, half-moons, and zigzag ornaments.

Vases or vessels of bronze are very rarely found in the graves. Some, which seem to have been imported from southern

FIG. 133. (½.)

FIG. 134. (½.)

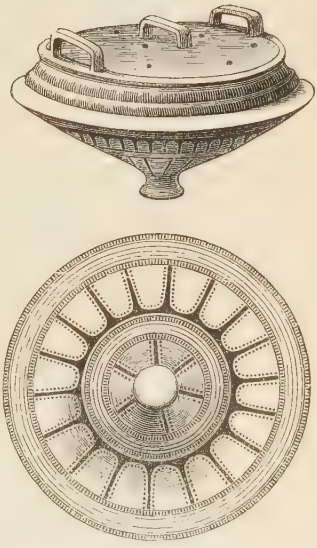

FIG. 135. (⅓)

lands, are shaped like kettles, with double handles. Others, evidently of native manufacture, have generally the shape of a box.

flat or pointed beneath, with a lid (Fig. 135). The under part of these boxes is often inlaid with black resin. The same sort of boxes are also found in the bogs, and generally contain spiral

Fig. 136. (⅓.)

finger-rings of gold wire. Bronze vessels, admirably cast and of a very peculiar shape, having the bottom rounded off, are known as "hanging vessels" (Figs. 136, 137); they have no lid,

but almost always are found with large conical objects or "tutuli," which, possibly, may have been suspended over the vessels by a

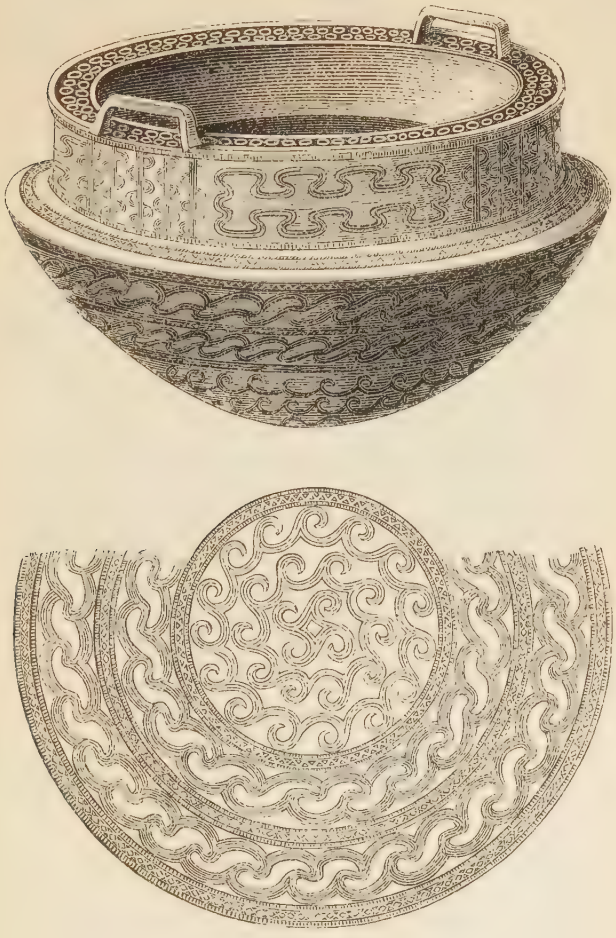

FIG. 137. (¼.)

strap. Strange to say they are scarcely ever found in the graves, while they are very common in the deposits in bogs and fields.

When discovered they either contain a great number of bronze objects, more especially ornaments and articles belonging to women, or they are mixed up with such objects. It is quite an exception to find them with the larger kind of weapons or with objects which indicate a combination of the ornaments and articles in use by both men and women.

These vessels are generally decorated with intertwined S or snakes and concentric rings, &c., and at the bottom with sacred signs, crosses, stars, rings, the triskele (Fig. 136), and

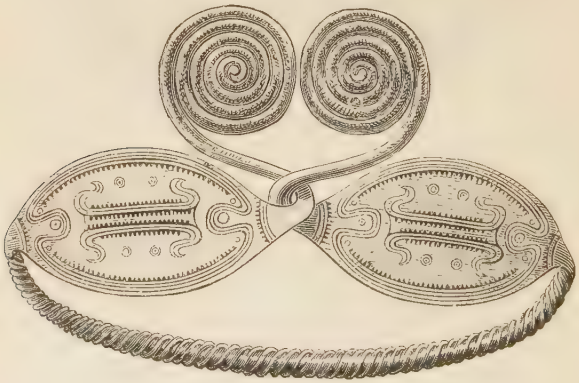

Fig. 138. (⅓.)

the swastika (Fig. 137), also with signs for the sun and moon, as the central point of the ornamentation. All this is a further proof of the conjecture that these hanging vessels were intended and used to carry and preserve the offerings to the gods.

Among the votive articles of bronze and gold deposited in fields and bogs, most probably by women, several are of unusual size and peculiar forms. The spectacle-shaped brooches (Fig. 117), sometimes plated with gold, are much more frequently found, and

of a greater size, in bogs than in graves. The heavy bronze head-rings, shaped either like a sort of crown or like Fig. 138, where a twisted ring spreads out in front into flat plates and spiral ends, are unknown in finds from graves. The flat surfaces are decorated with sun-ships and moon-signs. Some of these peculiar rings are

Fig. 139. (¼)

so large and heavy that they do not seem fit for wear, at any rate in daily use. The neck-rings and bracelets, both of bronze and gold, are extremely numerous. Other rings, some broad, some round and thick, recall to mind the leg-ornaments and the ankle-

rings so much worn in some parts of India. Besides the home-made hanging-vessels, some larger vases, undoubtedly of foreign origin, are sometimes met with in the bogs of Denmark. Similar ones are known from North Germany and Hungary, where they principally date from the first Iron Age. They differ from the cast

Fig. 140. (¼)

hanging-vessels of the Bronze Age, inasmuch as they have embossed patterns and are riveted together. But the ornamentation is of the same kind as that on many native articles from the later Bronze Age in the North.

FIG. 141. ($\frac{2}{7}$.)

Fig. 142 ($\frac{1}{3}$)

Thus on two such vases dug up near Siem in Jutland we see (Fig. 139) under the handles the well-known sun-ships, with the long-billed birds' heads, and in the centre the sun itself sailing in its ship. A very similar representation of the sun and of sun-ships is found upon a vase (Fig. 140) dug out of a bog near Nyborg in Fünen, and which contained eleven valuable gold bowls with handles. Two similar gold bowls, with bronze handles surrounded with gold thread, and terminating in horses' heads

Fig. 143. (½)

(Fig. 141), were found with a couple of cup-shaped gold bowls (Fig. 142) in a mound near the church of Boeslunde in Seeland, where, still earlier, a pair of splendid gold bowls had been discovered. On this peculiarly shaped mound it is probable that a pagan temple formerly stood. As is well known, the first Christian churches were often built on the sites of the heathen temples. Under any circumstances the gold bowls (Fig. 143), which so often, in somewhat modified forms, have been found in

different parts of Denmark, generally two or more together, must be considered to have been used for religious purposes. Not to speak of rings and zigzag ornaments, it is significant that the sun-wheel is represented on the bottom of Fig. 142, and the sun-horses on the handles of Fig. 141. Horses' heads are also often found on the handles of many small symbolical bronze knives, which have been already mentioned as being found in women's graves. The sacrificial ceremonies of ancient times were everywhere generally accompanied by feasts and drinking-bouts. Just as the gold bowls may have been used to bale the drink out of larger vessels, so a large bronze strainer, found in Seeland with hanging-vessels and other votive articles, has probably been employed to strain the drink for the feasts, or, possibly, the blood of the animals offered in sacrifice, with which those who took part in the sacrifices were sprinkled.

Of the construction and arrangements of the temples or houses of the gods in that remote time, but little is now known with certainty; but it cannot be doubted that the wealth and splendour displayed in the daily life of the people, in their graves, and in their offerings to the gods, must, as among all nations of antiquity, have been developed to a high degree on those spots where their highest divinities were worshipped.

Like all the other large buildings of antiquity in the North, the temples were generally constructed of wood. It was, therefore, easy to decorate the walls and the interior with carvings in wood of the same sacred signs, symbolical representations, and images of the gods which appear on contemporary metal objects, both large and small. The probability of such a decoration of the temples becomes doubly great when we see that even the side stones of a long stone cist found at Kivike, in Scania, and dating from a rather early period of the Bronze Age, are on the inner side richly adorned with carved symbolical signs and figures. In honour of the buried chief and temple priest—dignities which

in ancient times were united in the same person—and to commend him to the gods, the carvings on the grave seem intended to represent the interior of a temple, and a great sacrificial feast held therein.

The symbols which, as usual, signify the sun, moon, and lightning, are in the cist scattered over several of the stones; they are ring-crosses, ships, half-moons, and zigzags. Such symbols are generally carved on stones in grave-mounds of the Bronze Age, or on stones which have been placed outside around the base of the grave-mounds. But the decoration of the grave at Kivike is not confined merely to this; on one of the stones there is a prominent representation of a sort of altar. Above a long sun-ship stands a great cone, originally an Asiatic symbol of the sun's fertilising power. On each side of the cone is carved a spear-blade and a large broad-bladed axe with a curved shaft, no doubt emblems, partly of the sun's rays or fire, partly of lightning. The same emblems appear later in the northern mythology as symbols of the three principal gods, or the divine trinity; the ship and the emblem of fertility for Frey, the spear for Odin, and the axe or hammer for Thor.

On two of the side stones of the Kivike grave there are also some four-footed animals, either symbolical sun-horses, or horses intended as offerings to the sun-god, who is himself represented as driving, with horses harnessed to his carriage. A similar carriage is carved on a stone from another grave in Scania. The sun-carriage and horses are sometimes represented upon urns found in graves in Germany. In front of the carriage, on one of the Kivike stones, a sacrifice of human beings, with pinioned arms, seems about to take place. A similar human sacrifice, but on a larger scale, is clearly delineated on another stone. Pinioned men are being led to a large kettle, surrounded by women in long garments with hoods, and musicians, some of whom blow curved horns, while others beat two large drums hung over a pole.

The designs on the Kivike grave at any rate confirm the supposition that the singular trumpets or horns which are only known from the bog finds, had been employed at religious ceremonies, and that the large bronze axes which are no less remarkable, and which also have never been found in graves, must have had a symbolical use in the service of the gods, as had the great stone axes of the Stone Age. Even so late as the year 1130 A.D. the

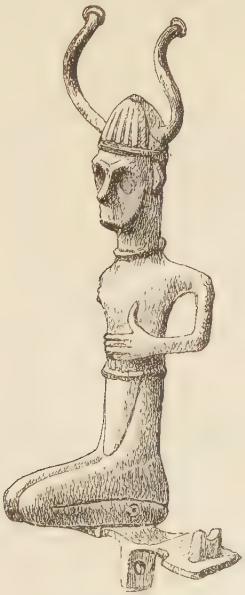

Fig. 144. (⅓)

old Danish historian, Saxo Grammaticus, informs us that the Danish prince, Magnus, son of King Niels, brought home as booty from a heathen temple, destroyed by him on an island in or near Götaland, in Sweden, some heavy Thor-hammers of copper ("malleos Joviales") which, after the ancient custom, had still served there as symbols of the god of thunder.

Without doubt a little bronze figure, clad in a short garment with a pointed end before and behind, and wearing a waist-ring, neck-ring, and horned helm (Fig. 144), has belonged to a temple or to the worship of the gods during the last period of the Bronze Age. It is known with certainty that the right hand, which is now missing, originally bore a hammer or axe. Like many other contemporary figures, for instance the horned figures which bear axes in the sun-ship on the bronze knife (Fig. 131), it has evidently been intended to represent the god of thunder. From its position and the preparation for fixing it to some object, it is probable that it was placed on one of the small symbolical carriages, or sun-chariots, which have been found from Italy up to Scania, and are not unknown in other parts of ancient Denmark. Among more southern specimens may be noticed a little bronze chariot from Judenburg in Styria, in the centre of which is a tall female figure, quite naked with the exception of a waist-belt or waist-ring, and which once bore on its head a large bronze vase. Around her are grouped gods bearing axes, the sun-god on horseback with shield and spear, and several naked figures leading animals for sacrifice, especially the stag, which was sacred to the sun both in Asia and Europe from the remotest antiquity, as the "sun-stag" of the northern mythology still testifies. On almost all the chariots there have been vases of a similar description, either placed quite alone or with figures of gods, prows of sun-ships, geese, heads of he-goats, sun-horses, &c. This is an additional testimony to the early symbolic signification of the vases.

Several other articles appear to have been used in the worship of the gods. A large bronze mounting which has belonged to a wooden temple vessel or sacrificial vessel was found in Scania. Along the upper edge it is adorned with isolated sun-wheels, and inside, on the bottom, with a star surrounded by triangular ornaments. Some penannular rings of massive gold (Fig. 145), ending in knobs and showing traces of wear, are, not without reason, considered to have been employed in the same manner as the

well-known large oath-rings of later heathen times which were laid upon the altar in the temples. They were held in the hand of the swearer, and were doubtless, as sacred rings, used by the "godar," or high priests. At their sacred services, at which valuable gold and bronze articles were used, not only music, but incense also may have been employed. They had a plentiful supply of sweet-smelling amber, and they also understood the preparation of another resinous substance, pieces of which, in the shape of roundish flat cakes, are often dug up in the bogs. After

FIG. 145. ($\frac{1}{3}$)

the numerous facts already produced it is indisputable that the people of the Bronze Age in the North were imbued with a lively reverence for the gods. Sacred signs and symbols with the ornaments developed from them, and even the commencement of the representation of the gods by images, not only adorn the objects used in the temples, or which were deposited in graves or in fields and bogs on solemn occasions, but they also adorn almost all the weapons, implements, and ornaments

employed in daily use. They are also found over the whole of Scandinavia, in the lowlands, carved on loose boulders, but in mountainous parts, near the coast, rivers, and lakes, on fixed low-lying rock-surfaces or "Heller" of the hard granite peculiar to the North. From "Heller" is formed the term "Helleristninger" (engravings on rocks). Neither the hardness of the material nor the difficulty of engraving it have been able to prevent the inhabitants of the North from seeking to represent the gods, their symbolical signs, and the animals sacred to them.

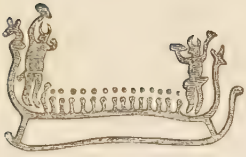

FIG. 146.

FIG. 147.

The size and extent of these engravings, which are often very considerable, the general uniformity of their designs throughout the whole North, and (especially in the larger "Helleristninger,") the extended and frequent repetition on the same rock of the same representation, are highly characteristic, showing them to be the common religious property of the people of that time. A similar repetition of subjects is, it is true, found upon smaller bronze and gold articles which have belonged to single individuals, but in the latter case they are merely intended for decoration.

Indeed, in many respects, the resemblance between the more minute representations on the metal articles of the Bronze Age and the larger engravings on rocks, is quite astonishing. The ships on the bronze articles are of the self-same shape as those which are the commonest figures on the rocks; they are often very carefully incised, and are found up to seventeen feet in length. The resemblance between the ship with the two horned men bearing axes on the bronze knife (Fig. 131), and the ship on a large rock in Bohuslehn, with two figures similarly equipped (Fig. 146), is most striking. In and around the ships naked

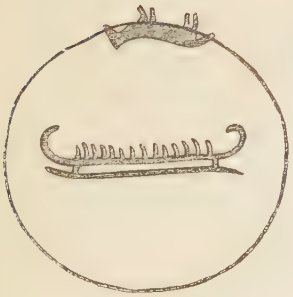

FIG. 148.

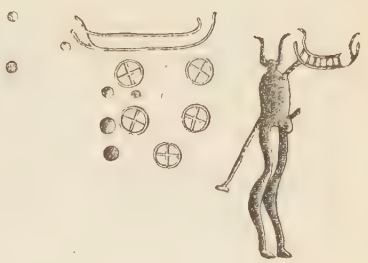

FIG. 149.

men are often seen, with strongly-marked phallic emblems, and with large horns, evidently gods of fertility. Sometimes they bear in their hand, or, as in Fig. 147, stand beside, a large axe, the usual symbol of the god of thunder; sometimes they swing the long spear by which doubtless another of the sun-gods is indicated.

That these ships were symbolical sun-ships, is shown by several rock-cuttings. On a rock in Scania (Fig. 148) a ship is surrounded by a ring, in which there is a horse. It is the sun's disc with the sun-horse. In Bohuslehn other ships are carried

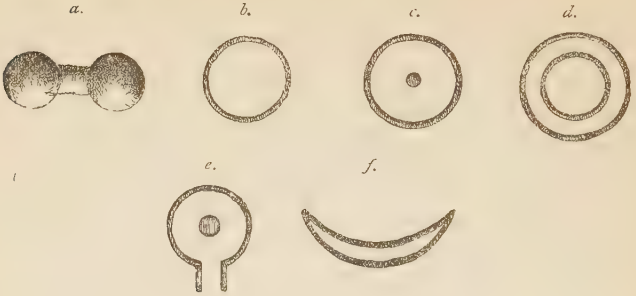

FIG. 150.

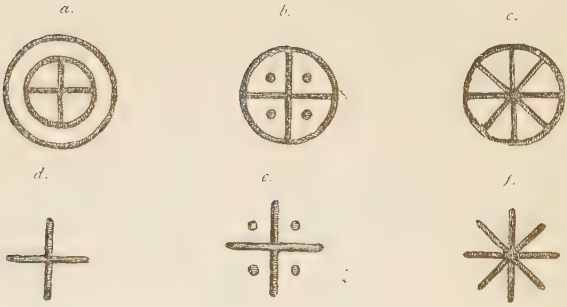

FIG. 151.

FIG. 152.

FIG. 153.

by naked men, sometimes on their head, sometimes under their arm, or, as shown by Fig. 149, in their hand; on old Gallic coins, which are nearly contemporary, the sun-god also has a ship in his hand. Behind the naked horned man, who holds the ship and is equipped with a sword, are seen the ring-cross and the

Fig. 154.

Fig. 155.

cup-shaped cuttings (Figs. 29, 30), which, even in the Stone Age, were recognised as symbols.

In addition to these signs, which appear in great numbers on the rocks, many others occur in close proximity to the ships and other figures, which in no less degree resemble the sacred signs on the antiquities of the Bronze Age.

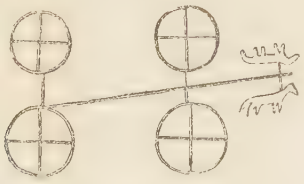

Fig. 156.

Thus Fig. 150 probably shows the moon-signs, formed of the cup-shaped cuttings, and of the ring, among which the sign (Fig. 150*c*), perfectly resembles the Indian symbol of fertility the Lingam and Yoni.

Fig. 151 renders the different forms of the sun-marks originating in the ring-cross.

In Fig. 152 is seen the sun-wheel, to the spokes of which half-moons are sometimes attached.

The sun-snake with the triskele and the "swastika" are represented together on Fig. 153, and the moon-signs, formed of the snake, upon Fig. 154.

The soles of feet is a marking characteristic of the rock-cuttings (Fig. 155). It frequently occurs, and has been considered a sacred sign over the whole earth, being in India an emblem of Buddha and of Vishnu.

Scattered about on the rock-cuttings, among the sun and moon signs and the representations of the gods, appear carriages (Fig. 156), doubtless the sun-chariots before referred to, and different animals—birds, snakes, horses, bulls, stags, possibly also pigs, &c.—all of which seem to have been sacred to the various divinities. Besides these appear representations of battles, of struggles between man and man, both by sea and by land and sometimes on horseback, of hunting, ploughing, love-scenes, &c.

It is clear that the chief intention of these laborious cuttings or carvings on the rocks, which often were made on a large scale, has been to invoke the protection of the gods and to induce them to favour the warlike and peaceful undertakings of the people, no less than its fruitfulness.

The Bronze Age of the north of Europe (and in particular that of Denmark) which was formerly quite unknown, is a subject of the greatest interest, from its beginning to its termination about the birth of Christ, or, perhaps, a little before. During its continuance the lands round the Baltic were thickly inhabited by a warlike people possessing a religion and culture of Asiatic origin. They had secured for themselves considerable wealth in bronze and gold through war, the rearing of cattle, agriculture, seafaring, and trade. They possessed a highly-developed workmanship in metals, and a remarkable sense of

form, which, taken together, enabled them to modify the foreign shapes and patterns according to their own ideas. In spite of a free intercourse with more southern lands, where iron, silver, and several other new metals, such as brass, an alloy of copper and zinc, had long been known and in general use, they maintained to the last with remarkable tenacity their old attachment to bronze and gold.

Although the finds, even those of the last period of the Bronze Age, seldom contain any traces of iron, it is impossible but that some knowledge of that metal and of the industrial progress made by its use, must by degrees have reached Denmark both by means of warlike and peaceful intercourse. The transition from the bronze to the iron culture must in this way have been greatly facilitated. But thus much is certain, iron was not brought into general use in Denmark before it came in with an entirely new current of culture from the south, introducing not only iron and other foreign materials, but also establishing a new technic and a new style. By its mighty waves the last remnants of the peculiar industrial productions of the Bronze Age were soon swept away. In graves, fields, and bogs, where weapons and implements have been deposited, iron from this time forth assumes the same important position that bronze had previously occupied.

To the north of Denmark, however, in the northern parts of Sweden and Norway, the culture of the later Bronze Age seems still for some time to have maintained its footing after the first stage of the Iron Age had established itself in Denmark. As usual, the movements of the great European currents of culture reached the southern Danish lowlands earlier than they did the more remote mountainous districts of Sweden and Norway.

One of the results of the iron culture was gradually to level the great inequalities which then existed between the different countries of Europe. About the time of the birth of

Christ, when the classic culture in Greece and Italy stood at its height, the Lapps and Finns of the extreme North, in Lapland and Finmark (as we learn from the accounts of the contemporary Roman historian, Tacitus), were still living in a completely primitive Stone Age.

Between these strongly contrasting extremities of the European civilisation lay the ancient Danish lands, forming, as it were, a highly favoured intermediate link. Yet even there, neither under the highly-developed Bronze Age, nor during the beginning of the Iron Age, did any knowledge of writing exist, although a rich classic literature was at that time flourishing in the South.

On account of the absence of any remains of writing or language of the Bronze Age and the earlier Iron Age immediately succeeding it in Denmark itself, it cannot be decided, with certainty, to which people the tribes then dwelling near or around the Baltic belonged, though doubtless they were closely related to each other. No trace is, however, found which would lead us to suppose that the culture of the Iron Age was introduced by a new immigration or conquest of the land. The names of places in the North furnish no trustworthy indication that a Gallic people, or, indeed, any other race essentially differing from the later native inhabitants, dwelt by the Baltic at or about the commencement of the Christian era. On the contrary, it is evident from the accounts of classic authors of that time, that a powerful Gothic tribe belonging to the great Germanic race, to whom also the most ancient names of places and sagas of the North bear witness, must have already settled both south and north of the Baltic. The self-same sacred signs, and undoubtedly the principal religious ideas connected with the signs, were common to the Bronze Age and the subsequent Iron Age. The worship, moreover, of the sun, moon, and lightning, so strongly prominent in the Bronze Age, and afterwards also in the Iron Age among the inhabitants of the North, fully accords with Cæsar's account of the religious belief of the Germans. He says that they only

worshipped the visible, helping gods, the sun, moon, and fire, and knew nothing whatever of other divinities.[1]

It is therefore highly probable that the people of the Bronze Age in the North, who at this time had only fully populated the ancient Danish lands, the nearest adjacent parts of Southern and Western Norway and Sweden up to Lake Mälar, were of Gothic race, and formed the vanguard of other Gothic-Germanic tribes advancing from the South, who, later in the Iron Age, during the great general migration of nations, completed the population of the extreme North.

[1] De bello Gallico, vi. 21. Germani deorum numero eos solos ducunt, quos cernunt et quorum aperte opibus juvantur, Solem et Vulcanum et Lunam; reliquos ne fama quidem acceperunt.

END OF PART I.

SOUTH KENSINGTON MUSEUM ART HANDBOOKS.

THE INDUSTRIAL ARTS OF DENMARK.

PART II.

THE INDUSTRIAL ARTS OF DENMARK

FROM THE EARLIEST TIMES TO THE DANISH CONQUEST OF ENGLAND.

BY

J. J. A. WORSAAE, Hon. F.S.A., M.R.I.A., F.S.A. Scot., &c.,

DIRECTOR OF SEVERAL ROYAL MUSEUMS,
AND OF THE ARCHÆOLOGICAL MONUMENTS OF DENMARK.

WITH MAP AND WOODCUTS.

PART II

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PART II.

THE IRON AGE.

I.

THE EARLIER IRON AGE.

From 1—450 A.D.

It is clear, when we compare the oldest finds of the Iron Age throughout Europe, that they everywhere, without exception, date from the last stages of pre-historic times.

Neither from archæological observations nor from written testimony, have we any evidence or tradition that any people of Europe, after having once known and generally made use of iron, had sunk so low as to use instead of it the inferior materials, bronze and stone.

In grave-mounds containing mixed interments from different periods, the stone and bronze antiquities, being the most ancient, always lie below, while the iron articles, the more recent, are found nearer the surface.

It is now certain that the introduction of the iron culture into the different countries of Europe was not alone due to the Greeks or Romans, or, indeed, to any single European nation.

As was the case with bronze, iron must originally have been brought in from Asia by different routes, and afterwards have been adopted by the nations both south and north of the Alps.

While the Greeks and Romans, who continually benefited by a close and constant intercourse with the ancient culture lands,

Egypt and Asia, stood on the highest summit of the classic culture full five centuries before the Christian era, the inhabitants of North Italy, and the more remote so-called "barbarian" tribes of the tracts near the Danube, of the Rhine districts, of Gaul, and Spain had, each in its own way, attained to a considerably developed iron culture. By numerous and marked peculiarities it varied essentially from the classic culture in many respects though it was afterwards influenced by the latter. In the countries near the Danube, where a very ancient industry in metals had its seat, and in Spain, the art of working in iron and steel had early obtained such perfection that the Romans themselves, under their first emperors, imported their choicest weapons from these countries, otherwise so generally despised by the haughty classic race.

From extensive comparative investigations of the contemporary antiquities of different lands it is clear that the centre of this development and extension of the iron culture must be sought in the lands adjacent to the Danube, in Switzerland, and the conterminous parts of North Italy. Even during the Bronze Age these countries had been closely connected with each other. It is also certain that the pre-classic iron culture before the commencement of the Christian era passed through at least two essentially different stages of development, which, from the regions just mentioned, especially irradiated Western and Northern Europe.

The first of these stages, which from an extremely rich find, made at Hallstatt, in the Salzkammergut, in Austria, has received the name of "*the Hallstatt Period*," designates, in many respects, the transition from bronze to iron. The weapons and implements are sometimes of bronze, sometimes of iron, either of the same ancient forms, or newly originated ones. Personal ornaments and vessels are particularly numerous; the latter are often made of bronze plates, beaten thin, or embossed. Other vessels are of burnt clay, of different, even elegant, shapes, and occasionally

adorned with colours. The ornamentation consists partly of signs of the sun and moon, ring-crosses, wheel-crosses, half-moons, ships, &c., with the ornaments developed from them, and the usual sacred signs, viz., the cross, the swastika, and the triskele, partly of very primitive representations of human beings and animals (horsemen, horses, stags, geese, he-goats, oxen, and bulls) which, doubtless, have all had a symbolic signification, as emblems of the sun-god and the god of thunder. Some small thin bronze axes with a horseman or horse upon them (the sun-horse), have a similar origin, and as symbols of the sun and the god of thunder must have been used as amulets. In graves, containing either burnt or unburnt bodies, ivory, glass vessels, and similar traces of intercourse with foreign southern lands are now and then found. Everywhere north of the Alps a strong North-Italian connection or influence is prominent. But both in North Italy and the lands near the Danube, a native, and, on the whole, singularly highly-developed new technic in the treatment of both bronze or brass and iron is clearly perceptible.

It was this "Hallstat culture" which first began to supersede the old bronze culture which still reigned further north. Through East Germany, Bohemia, the districts near the Elbe, and, partially, those near the Rhine, it came by degrees, even through its remotest branches, to exercise great influence over the later Bronze Age of Denmark and the higher North.

By trade, and other kinds of peaceful intercourse, a considerable quantity of ready-made articles must have been imported from North Germany and Central Europe, into Denmark and other parts of the North, where they served as patterns for the further development of the older native manufacture of bronze which had hitherto been confined to casting. The Hallstatt culture was not, however, as yet sufficiently powerful to overthrow the peculiar stronghold of the Bronze Age in the ancient Danish lands. That bronze and gold continued to be exclusively used there, and that even in the later period of the

Bronze Age no trace of silver is to be found, has a striking parallel in the fact that no silver has been discovered in the great burial-place at Hallstatt.

It is somewhat later that silver makes its first appearance in considerable quantities, and it becomes widely diffused during the second period of the pre-classic iron culture in Central Europe, the "La Têne period," which immediately succeeds the "Hallstatt period," and takes its name from a large find at La Têne, near Marin, Lake of Neuchâtel, Switzerland. It was this culture which, during the centuries immediately preceding the Christian era, not only prevailed in North Italy and Central Europe, but also in Germany, Gaul, Belgium and the British Islands — more especially, indeed, in the latter, where it maintained its footing still later, and has received the name of "late Celtic." The traces it contains of the ancient bronze culture with respect to materials and shapes are but faint. Almost all the weapons and implements are of iron. The swords and daggers have sheaths of iron or bronze, and, with their impressed stamps, have the appearance of works of regularly established manufactures. The neck- and arm-rings of bronze and glass, the brooches and belt-clasps have peculiar forms. The existence of a comparatively high culture and splendour, united to increased intercourse with the Etruscan and classical culture, is proved both by valuable vases and personal ornaments, as well as by the numerous coins of Central Europe, Gaul, and Britain, which are imitations of Greek gold and silver coins, particularly of those coined by King Philip of Macedon, father of Alexander the Great. The imitations of the Greek coins are not merely confined to a barbarous copying of the foreign classic models. They often represent images of the native gods, sacred signs, and symbolical animals, which in the closest manner were connected with the most important national divinities. As in the Scandinavian Bronze Age and in the "Hallstatt period," the S, or sun-sign, is often found on the coins of

the La Têne period, as well as the signs with curved arms formed from it, the swastika and the triskele; of the swastika or the triskele with straight arms, there is, however, as yet, as in the older periods before described, no trace whatever. Besides these are seen the well-known signs of the sun and moon, the ring-cross, the wheel-cross, the simple cross, suns, moons, half-moons, the three dots placed triangularly, indicative of the divine trinity, the sun-chariot, the sun-horse, sun-ships, birds, oxen, bulls, &c. One extremely frequent and prominent figure is the pig or boar, which was the national emblem, borne on the standard, and which was doubtless chosen because the pig or boar with its golden bristles was a symbol of the golden-rayed sun among many different nations of Asia and Europe, and also particularly in the North. Thus in the reputed remains of Ilios or Troy, the figure of a pig made of clay, and completely covered with the sun's cross-marks, has been found;[1] it had evidently served as a votive offering to the sun or the sun-god.

The peculiar iron culture of the La Têne period was, without doubt, generally and copiously diffused throughout all the lands inhabited by the Gallic or Celtic peoples. But as the sacred signs and symbols used at that time were common to nations of different race, so must the culture itself have been common to them, at least as far as regards the Gauls and the Germans. It extended, for instance, over North Germany, and from thence towards the North. It was comparatively late, scarcely before the Christian era, that it reached Denmark, and, later still, South Norway and the coasts of Sweden, and with considerably diminished power.

Recent finds in Denmark have demonstrated more and more clearly that this culture-wave is the first which bore a complete fully-developed Iron Age to the North. Hitherto the finds have been most numerous in the peninsula of Jutland and the island of Bornholm. They are discovered partly in grave-mounds

[1] Schliemann, *Ilios*, London, 1880, p. 616.

and so-called "fire-spots" (cauldron-shaped hollows in the earth filled with coal and ashes), mingled with burnt human bones, the buried articles frequently being bent and spoiled; partly in bogs, after the ancient fashion.

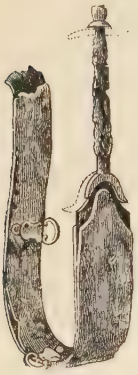

FIG. 157. ($\frac{1}{6}$.)

FIG. 158. ($\frac{1}{2}$.)

FIG. 159. ($\frac{1}{2}$.)

From Jutland we have several iron swords in iron sheaths (Fig. 157); spears and knives have also been found there. The ornaments met with consist chiefly of the characteristic brooches marked with crosses (Fig. 158), and sometimes with the triskele, belt-clasps (Fig. 159), and larger belts (Fig. 160). As usual, the smaller

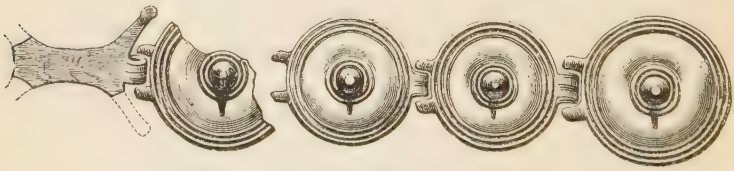

FIG. 160. ($\frac{1}{4}$.)

objects are found in the graves, the larger in bogs and fields. Large bronze rings with heavy projecting knobs are peculiar to the latter deposits. They have probably served as votive offerings, and are, therefore, generally decorated with sacred signs. On the rings

(Figs. 161, 162), is seen the S sign, or sun-snake, and on the knobs of Fig. 162 the triskele, which latter sign is also repeated in embossed work. The knobs on another ring are ornamented

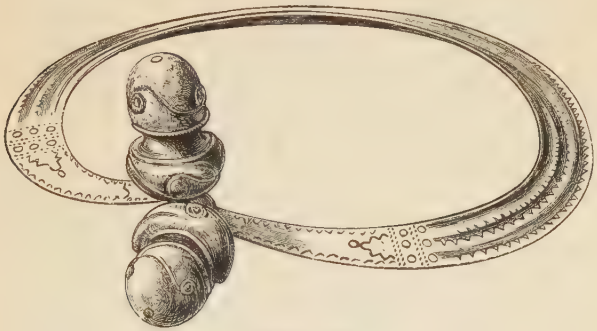

Fig. 161 (½.)

in a similar manner (Fig. 163), with the addition, on the back of the upper knob, of the sign of the trinity, three dots placed triangularly. The ring is, besides, marked with the triskele and with

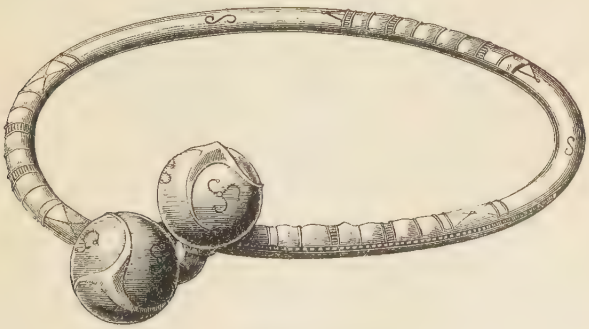

Fig. 162. (½.)

double half-moons. The upper part of a large sacrificial vessel with massive handles of bronze or brass (Fig. 164 *a* and *b*) was taken from a bog in Fünen. Both externally and internally it is

ornamented with figures having a mythological signification. Even if the vessel itself was made abroad, or at least by foreign workmen, it was certainly used in Denmark in the worship of the gods, as the figures in question are equally appropriate for the divinities then adored in Denmark. On the outside the large head adorned with a thick neck-ring joined by knobs and surrounded with bulls, would not fail to recall to the mind of the

FIG. 163. (⅓.)

people the great god of thunder, Thor, to whom bulls were especially consecrated. Several nations believed that in the thunder they heard the bellowing of a furious heavenly bull: and the thunder-bolts, which were presumed to fall during the tempest, were taken for teeth which the bull spat out in its fury. The pig or boar, and wolf, which, on the inside (Fig. 164*b*), stand on either side of the triskele in the dotted ring (the sun), would involuntarily call to mind the hog of Frey and one

of Odin's wolves. For it is quite indisputable that Thor, Frey, and Odin, who, towards the end of heathenism, were the chief divinities in the North, had already occupied that position for several centuries. In the next place, accumulated observations indicate that the idea of a divine trinity, and other important doctrines of the northern mythology, must have been extensively diffused not only during the whole of the Iron Age,

FIG. 164*a*. (¼.)

FIG. 164*b*. (¼.)

but undoubtedly even in the preceding Bronze Age. During that period, at least as far as we can judge, the North was inhabited by a branch of the great Gotho-Germanic race, which at a remote time, like the other Aryan peoples, had brought from Asia the common foundation of their religious belief. It was in the details only that these doctrines, by degrees, became differently developed in different countries.

It is as yet by no means clear how far the two great currents of the pre-classic iron culture were strong enough to destroy the ancient bronze culture in Denmark and the peculiar industry it had developed there. At any rate, the waves of this southern culture-current became considerably weaker as they advanced towards the North. For neither the old Etruscan articles which found their way to the districts near the Rhine, nor the barbaric Gallic imitations of Greek coins, so common in southern parts, have ever been found in the old Danish lands. For the present we must conclude that the Romans, and with them the mighty classic culture, must have crossed the Alps at the very commencement of the Christian era, before the last remnants of the Bronze Age could have been completely destroyed in the remotest districts of Denmark, and in the Scandinavian North in general.

The crossing of the Alps by the Romans was not only accompanied by battles, by political revolutions, and even by wholesale migrations and similar great movements among the Gallic and Germanic races; it was accompanied by an eventful struggle between the pre-classic and the Roman cultures. For the first time the Gauls and Germans stood face to face in their own lands with the foreign culture. The numerous colonies established by the Romans in the lands they conquered, near the Danube, in Gaul, and Britain, became so many centres for the diffusion of Roman art, manufactures, and civilisation. The effects were soon visible, particularly as the Romans, with great wisdom, humoured the peculiarities of the conquered nations in both spiritual and temporal matters. Every day more and more of the "barbarians" adopted the manners and customs of the Romans, and strove earnestly to imitate the productions of Roman industry. Attracted by the wealth and splendour of the empire of Rome, crowds of the warlike members of the neighbouring free nations flocked to the Roman standards, and thus the knowledge of the Roman culture and its powerful influence became extended far and wide. Even the countries of the North,

though they lay far from the Roman frontier, and had never been subdued by Roman conquerors, could not escape the mighty influence of the Roman culture.

The written records which now begin to cast a light over the state of the nations, both within and without the Roman dominions, are completely silent as to this more peaceful intercourse. All the more valuable, therefore, are the numerous and trustworthy illustrations afforded by the archæological finds. Roman coins and other articles of Roman art and industry have been discovered in surprising numbers in the North—vessels, vases, saucepans, and colanders of bronze, vessels of silver and glass, metal mirrors, statuettes, ornaments, weapons, &c.; some bearing Roman trade-marks and inscriptions; now and then even Greek inscriptions have been found.

The finds in the ancient Danish lands are the most numerous and the richest; from thence they extend to the extreme north of Sweden and Norway, but in gradually decreasing numbers. This action of the Roman culture upon the North, so indisputably powerful in its effects, may be assigned to various periods, according to the contents of the different finds.

Among the numerous Roman coins and antiquities dug out of the earth in the North, no coins of the Republic, or Consular period, have been found; nor, indeed, any object which can be supposed to have been imported before the Christian era. Even the oldest Roman finds, which frequently display a certain provincial development of the Roman culture, must be of comparatively late origin, and as a rule can scarcely be assigned to the first century of our era. In Denmark, and the North in general, finds of those barbarous imitations of Roman coins which were coined at an early period by the natives of Gaul and Britain are quite unknown. The most powerful influence of the Roman culture on the North seems therefore to have proceeded from the tracts near the Danube and the Rhine, but not until the Roman colonies established there had begun,

towards the end of the first century, to blend with the native populations.

From the second century A.D., at any rate, the intercourse between the Roman colonies and Denmark must have been established. In the second and third centuries most of the imported articles are purely Roman, and of decided Italian shapes; very few are half-Roman or stamped with a barbaric style; Roman coins are, as yet, rare. In the fourth and fifth centuries the relative position is completely changed; the half-Roman or barbarised objects are greatly in the majority; the Roman, on the contrary, are steadily decreasing; at the same time Roman coins are becoming numerous.

One of the most important channels of commerce between the North and South still, as in earlier times, ran through the peninsula of Jutland, more especially at the commencement of the new Roman intercourse. In several grave-mounds burnt human bones, wrapped in woven stuffs, have been found in large Roman bronze vessels, with ornaments of silver and gold. Other Roman vessels, vases, goblets, saucepans, colanders, &c., are placed in the graves, inserted into the sides of the grave-mounds, or even purposely deposited in bogs and fields. The old burial customs and offerings were evidently maintained both in Jutland and the rest of Denmark, the only difference being that they were by degrees adapted to the increased outward splendour and more developed religious ideas, which, under Roman influence, had been diffused among those neighbours and relations of the inhabitants of the extreme North who dwelt in Germany.

After the example of North Germany, the inhabitants of Denmark began, during the first period of the Roman influence there, to cease raising large grave-mounds. The remains of the burnt bodies were often deposited in underground cavities with broken or partially burnt articles, chiefly weapons bent together; sometimes they were interred in large ordinary burial-places. The burning of bodies began to be abandoned, par-

ticularly with regard to the upper classes, more especially in the eastern parts of Denmark, viz., Seeland and Fünen. Graves containing unburnt bodies are rarer in Jutland, where they are found only now and then, and where on the whole the graves display less splendour than on the islands. Vessels and goblets of burnt

Fig. 165. ($\frac{1}{3}$)

clay often replace there the numerous and valuable vessels and drinking-cups of bronze, silver, and glass, nay, even drinking horns of glass (Fig. 165) with which the graves with unburnt bodies are richly provided in Seeland and Fünen. In contrast to the contents of the graves with burnt bodies, the weapons, which are only exceptionally found in the graves with skeletons, are no

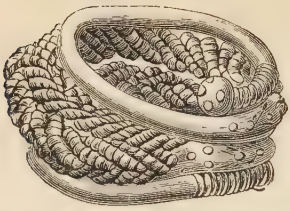

FIG. 166*a*. ($\frac{1}{1}$.)

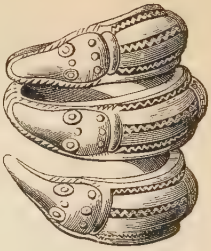

FIG. 166*b*. ($\frac{1}{1}$.)

FIG. 167. ($\frac{1}{1}$.)

FIG. 168. ($\frac{1}{4}$)

FIG. 169. ($\frac{1}{4}$)

longer bent together, nor are the other articles half melted or broken. Roman coins and inscriptions in the most ancient runes become more and more frequent. In all respects a powerful and increasing southern influence is strikingly apparent.

Subjected to the pressure of a culture so new and overwhelming, the native industrial arts of Denmark were severely injured. For a long time industry confined itself to the imitation of foreign models. The many skilled workmen Denmark doubtless possessed had but little difficulty in learning to manufacture the simpler iron articles, especially the short characteristic swords, the spears, bosses for shields, knives, and other weapons and implements. Several finds also prove that even in the first part of the Iron Age in Denmark the art of smelting iron from bog-iron was fully understood. The goldsmiths also were doubtless able to imitate a great portion of the foreign ornaments, such as gold finger-rings (Figs. 166*a* ; 166*b*) and pendants (Fig. 167). But in all these the Roman, or half-Roman influence is evident.

Even the earthen vessels, which are undeniably of native manufacture, differ perceptibly from the ancient ones in form, workmanship, and decoration. The sacred signs are more frequent upon them than before ; Fig. 168 displays the sign of the triad (the three dots placed triangularly) and the zigzag ornaments. A number of ring-crosses or sun-signs are impressed on Fig. 169. The ring or moon-sign, and over it the figure of a human being, or rather of a god, with upraised hands, is engraved on Fig. 170. Still more remarkable is Fig. 171. Under an ornament, which is evidently formed from the straight-armed swastika (Fig. 83), is placed a row of stars or suns, and under each of these a sole of a human foot, in the shape inherited from the Bronze Age, as a decidedly sacred sign. Similar soles of feet are impressed on several vessels from graves dating from that period. A perfect swastika, with straight arms, the introduction of which into the North is clearly due to Roman influence, is impressed on an urn

FIG. 170. (¼.)

FIG. 171. (⅛.)

found at Broholm in Fünen. Another urn, also from Fünen, is ornamented on the body with a row of geese. Several animals sacred to the sun, such as pigs and snakes, may also be

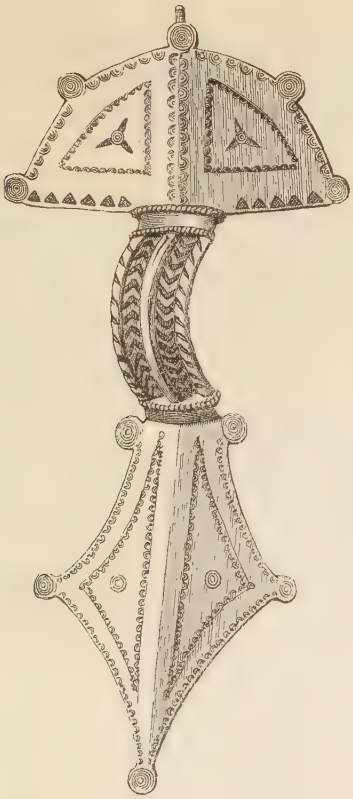

Fig. 172. (⅓.)

discerned among the decorations found on the grave-vessels of this period.

The increasing culture which was a consequence of the closer intercourse with the Romans must have had the result that the

religion of the Germanic nations was reflected more and more in the new Roman-barbaric industry both of the Rhine districts and of the more northern lands also inhabited by people of the Germanic race. The sacred signs with straight arms, introduced by the Romans, alternate with the ancient signs with curved arms. The triskele, with straight arms and with the sun in the centre, has a prominent place on a silver brooch found in Jutland (Fig. 172). The double sun-snake, or the swastika, with curved

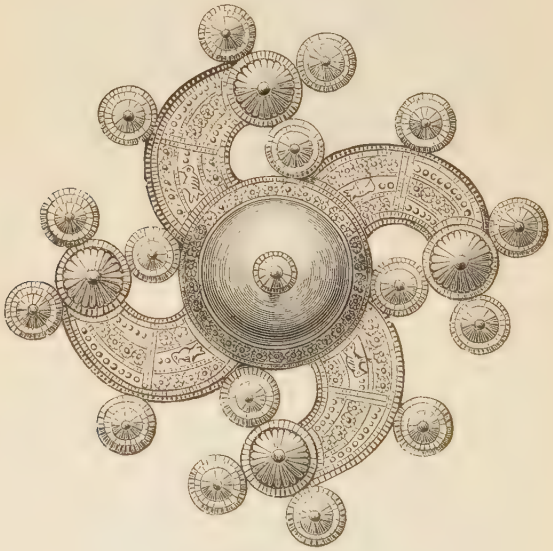

Fig. 173. (½.)

arms, evidently forms the basis for the silver brooch plated with gold (Fig. 173), taken from a skeleton-grave at Varpelev, in Seeland; on the arms are seen sacred birds. This sort of brooch was a great favourite in Mecklenburg and Denmark. Sometimes the knobs in the centre are of amber, which indicates northern workmanship. The S sign, or single sun-snake, with the sign of the triad, half-moons, &c., is engraved on the lid of a large

bronze vessel with a spout (Fig. 174), of half-Roman shape, another of which has been found in South Germany.

Religious representations on a larger scale also begin to come into use. Round the border, plated with gold, of a silver

FIG. 174*a*. (¼.)

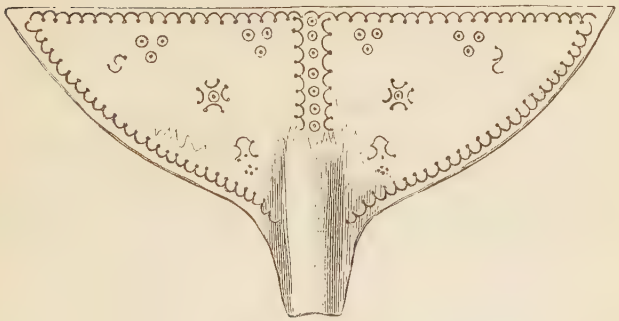

FIG. 174*b*. (¼.)

goblet (Fig. 175, *a*, *b*), taken from a burial-place in the east of Seeland, is represented in embossed work a man in a sitting position, with a sword; before him, among crosses, or sun-signs, is seen a horse, with a sun or moon under its belly, and, near it, geese. It is incontestably the sun-god Frey. Then come

bearded heads, and a he-goat; doubtless emblems of the god of thunder, Thor.

Not only the graves but also the large finds in bogs and fields afford the most striking testimony of extended religious ideas and customs. According to several ancient records it was the habit of many nations on festive occasions to carry the images of the gods about on carriages covered with cloths; after this

FIG. 175*a*. (⅓.)

FIG. 175*b*.

parade the carriages and idols were washed secretly in lakes. In the North the image of the sun-god Frey was at certain times borne on a carriage in a solemn procession. The remains of such a splendidly equipped carriage, which has evidently been covered with cloths or coverings, was found in a bog at Deiberg on the west coast of Jutland. The rich, beautifully wrought bronze mountings on the wheels and the body of the carriage are thickly

decorated with the triskele, with suns, half-moons, and, especially, with the S or sun-snake signs, with the triad mark (three dots in a triangle) at each end. This slight carriage was scarcely fitted for common use on the primitive roads of that period; nor were any traces of harness or of horses found with it. Similar carriages were also sometimes burnt with the bodies of chiefs or priests on the funeral pile. In and near a large bronze cauldron, found in a grave in Fünen, the mouth of which is formed by a thick iron ring with heavy iron handles, considerable quantities of the burnt fragments of the mountings of a carriage in bronze and iron were discovered, as well as several iron swords, knives or daggers, shield-bosses, bronze vessels, gold rings, &c.; but of harness or horses there was not the slightest trace. That a sacrificial offering at the burial had previously taken place is clearly indicated by the various bronze vessels and the large bronze cauldron which in form strongly resembles that represented by Fig. 164. Corresponding bronze cauldrons with iron rings and large iron handles have been found in graves with burnt bodies in Bornholm and Jutland. Such a cauldron, found near Ribe, contained at least nine Roman bronze vessels, gold ornaments, iron weapons, and a coat of mail formed of iron rings; all were injured or spoiled by the burning of the body. It is highly probable that in depositing the remains from the funeral pile in the cauldron, which had been used at the preceding funeral feast, the intention was to render the grave still more sacred. No less probable is it that the corpse of a chief or priest had been placed on the funeral pile in the carriage which on other occasions was specially consecrated to the worship of the god of the sun.

In fields and bogs, but not as yet in graves, images of the gods themselves have been found. Roman statuettes of bronze partially inlaid with gold and silver are frequently dug up. Even the hands of larger bronze statues which have evidently been broken off the figures have now and then been

discovered. Several of these statuettes representing Roman gods and goddesses have evidently served also as images of the northern gods. During the long-continued and powerful influence of the Roman culture, both materially and intellectually, on the Gallic and Germanic nations, a blending of the Roman with the barbaric divinities, and of the religious ideas connected with them, took place. This blending of ideas was doubly easy as the different nations throughout Europe, in the worship of the sun, moon, fire or lightning, possessed a common religious foundation which they had brought with them when they first migrated from their original home in Asia.[1] In many cases it was merely necessary to change the names in order to convert the classic divinities with their characteristic emblems into the gods of the "barbarians." By degrees the Gauls and Germans on both banks of the Rhine began, on their own account, to imitate the images of the Roman gods and to transform them according to their own religious ideas.

Numerous stone images have been found in Gaul where local gods display, in combination with Roman style, ancient, non-Roman head-ornaments, consisting of large horns, generally those of the stag (the sun-stag). These images have frequently three heads on one body, by which the trinity is indicated.

In Denmark also the Roman influence must have awakened new life in the figurative representation of the gods. A Romano-barbaric bronze figure with three heads (Fig. 176) was found in Bornholm, which was doubtless intended to represent the northern trinity, Thor, Odin and Frey. Somewhat later in the course of time we learn that the Vends represented their god Triglaf with three heads. At the present day the three-headed Trimurthi is a personification of the trinity in India. Another half-Roman bronze figure with rays round its head (Fig. 177), dug up in Denmark, may have passed for the sun-god Frey among the

[1] The remark of Tacitus (*De Germania*, cap. 9), that even the Germanic people had sacred signs for their gods, is in this respect of peculiar interest.

inhabitants of the North. A large waist-ring, of an alloy of silver and gold (Fig. 178), has probably belonged to a large wooden image of a god, as it is riveted together in the centre and is not large enough to slip over the hips. It cannot therefore have been destined for common use.

Fig. 176. (⅓.)

Fig. 177. (⅛.)

Towards the end of the first part of the Iron Age the images of the gods and of the sacred animals increase in number and importance. They display a richer symbolism and a more independent development, which can only have been attained by nations dwelling on the frontiers of the Roman dominions towards the south, and strongly influenced by the Roman, nay, even by the new Christian, culture then dawning upon them. The Germanic

elements are distinctly visible, and the resemblance between these representations and the most ancient Germanic religious myths, especially those of the North handed down to us in the Eddas, becomes gradually more and more incontrovertible.

A round ornament plated with gold (Fig. 179) formed part of a large find at Thorsberg in Slesvig; it served to decorate a coat of mail formed of iron rings. Five suns are placed crossways, and between two of the outer ones is seen a barbarised figure of Jupiter with horns on his helmet; the sun in the centre is surrounded by a circle of helmeted heads. Just as this recalls to our minds the Germanic and Scandinavian god of thunder, Thor,

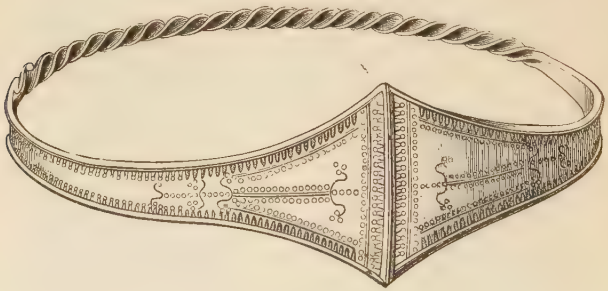

Fig. 178. (¼.)

who, later, was often represented with a helmet on his head, so the thin barbaric golden figures of horses, geese, and fish, riveted on the ornament or brooch itself, remind us of the sun-god Frey.

Another large ornament, together with a similar head of Thor, has a row of figures representing his he-goat, Frey's horse and hog, the goddess Freya's falcon, hog and cat, surrounded by the fish of Thjodvitner, which swam in the streams encircling Valhalla. A mounting (Fig. 180), also from Thorsberg, has in the centre a triskele formed of the sun-snake; still more frequent, both at Thorsberg and in other finds in large bogs of the same period,

FIG. 179. ($\frac{2}{3}$.)

FIG. 180. ($\frac{1}{4}$.)

FIG. 181. ($\frac{1}{4}$.)

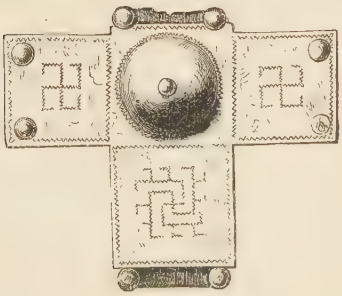

FIG. 182. ($\frac{1}{4}$.)

is the swastika with straight arms (Fig. 181). A portion of a mounting (Fig. 182) seems to explain how this sign, like the former snake signs, was the foundation for a peculiar ornament which, by degrees, assumed various forms.

On the whole the industrial development, wealth, and magnificence, especially with regard to the equipments for war, which is revealed in the large bog-finds, dating from this period, is really astonishing. Though brought to light in many parts of Denmark,

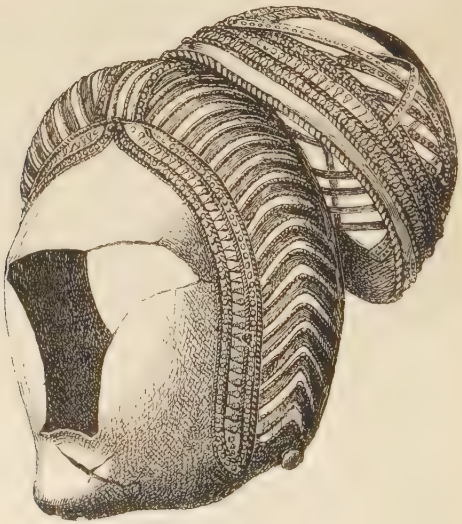

Fig. 183. (¼.)

the majority of these finds as yet have been discovered in Fünen and Jutland. The articles have been intentionally deposited, and with visible care, yet the greater part of them were first bent together, hacked, broken, and made useless.

With the fragments of finely-woven articles of clothing, helmets of bronze and of silver are met with, partly of Roman and partly of barbarised shapes. The silver helmet (Fig. 183) is ornamented with gold. The coats of mail, made of iron rings,

which are only occasionally found in graves, are tolerably frequent in the bog-finds (Fig. 184). Besides the large

Fig. 184. ($\frac{1}{12}$.)

round brooches before-mentioned, elegant smaller buttons of delicate workmanship, made of silver plated with gold have

occurred. The shields are made of wood, with bronze mountings round the edges and at the junctions of the planks. In the centre a boss of bronze or iron is placed for the protection of the hand holding it behind (Fig. 185).

The swords are of different shapes and workmanship. Some

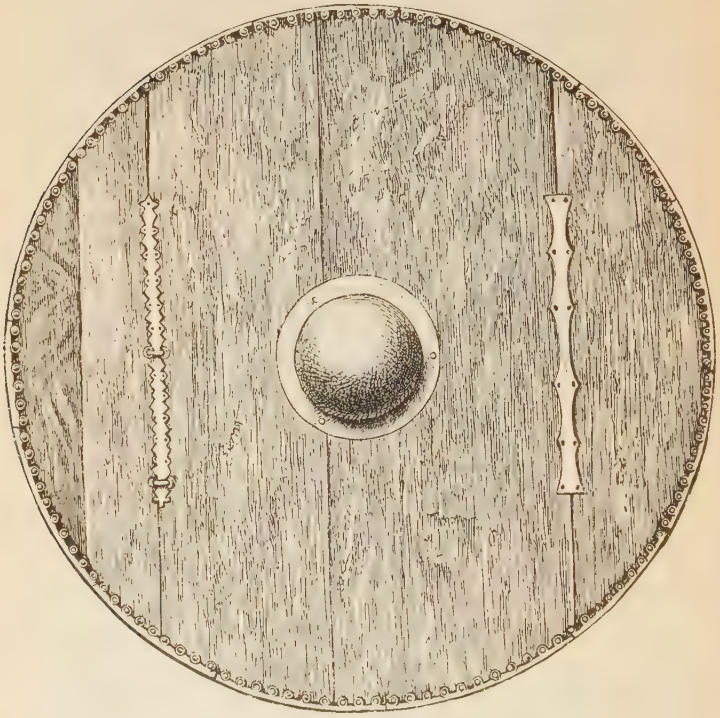

Fig. 185. (¼.)

in the ancient fashion are single-edged (like Fig. 186), others two-edged and rather short, with a ring at the end of the handle (Fig. 187); now and then they have damascened blades (Fig. 188). The longer swords are sometimes simply of wrought iron, but frequently they are damascened. The hilts are ornamented

with buttons of ivory, bone (Figs. 189 and 190), and wood. The wooden hilts have mountings, or are decorated with silver-headed nails. Other hilts (Fig 191, 192) are entirely mounted in silver.

Fig. 186. ($\frac{1}{6}$.)

Fig. 187. ($\frac{1}{8}$.)

Fig. 188. ($\frac{1}{8}$.)

Fig. 189. (1.)

Fig. 190. ($\frac{1}{6}$.)

On the hilts are seen the cross-sign and swastika, and on the blades the trade-marks of the makers in Roman letters. On the mountings of the wooden scabbards of the swords (Figs. 193 and

194), the swastika is employed to secure the strap of the sword. What a favourite was this latter sign may be judged from the fact that it was indispensable even on common bone articles (Fig. 195). Among the Romans also it represented the highest divinity, Jupiter, the mighty wielder of the thunder and lightning. By the Germanic peoples it would be quite naturally adopted as the special sign for the god of thunder, Thor, who in the North was originally considered and worshipped as the highest divinity. Odin, it is true, was looked upon as the universal father, and creator of all things; but even in Sweden, where the worship of Odin played so prominent a part, Thor, as the chief god in the trinity, was still to be seen, shortly before the introduction of Christianity, seated upon a throne between Odin and Frey in the far-famed temple at Upsala. For the inhabitants of the North who, it is certain, had previously represented their highest god by the swastika with curved arms, the transition to the swastika with straight arms was extremely easy, nay, almost imperceptible. Henceforth both signs were used indiscriminately.

Signs of the sun and moon and the triad symbol are beautifully inlaid in silver on spears (Fig. 196), which, as well as javelins (Fig. 197), wooden bows (Fig. 198), and arrows with heads or points of iron or bone (Fig. 199) are found in great numbers and of various forms.

The equipments for riding, and the harness in general, are now of striking splendour in comparison with those of the preceding period in the North. Spurs of bronze, with iron points (Fig. 200) and of various shapes, prove that the chiefs, at least, fought on horseback. The horses' bits (Fig. 201) were beautifully wrought in bronze; the ends of the bronze chains terminated in mountings of gold and silver. Pieces of metal ornamenting the fronts of the horses' heads were decorated in a similar manner. These decorations consist of crosses, half-moons, and particularly the sun-snake. As the horse was specially dedicated to the sun-god

FIG. 191. ($\frac{1}{6}$.)

FIG. 192. ($\frac{1}{3}$.)

FIG. 193. ($\frac{1}{3}$.)

FIG. 194. ($\frac{2}{3}$.)

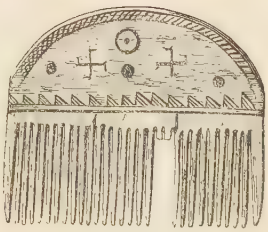

FIG. 195. ($\frac{1}{3}$.)

Frey, it can hardly be by mere chance that the cross, Frey's sign, is represented on the buttons of the horse-head ornament (Fig. 202) and the spurs before described.

FIG. 196. ($\frac{1}{4}$.)

FIG. 197. ($\frac{1}{4}$.)

FIG. 198. ($\frac{1}{12}$.)

FIG. 199. ($\frac{1}{2}$.)

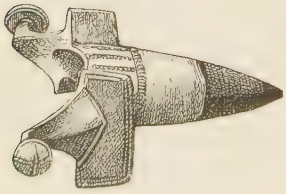

FIG. 200. ($\frac{1}{2}$.)

Many crania and bones of horses, some of which had been slaughtered for food, and the blocks and other apparatus for

FIG. 201. ($\frac{1}{5}$.)

slaughtering, have been found in the bogs; as have also wooden carriage-wheels, without mountings, curved knives or sickles of iron to cut grass or corn, blacksmiths' tools, metal cauldrons, earthen and wooden vessels, wooden platters, large wooden spoons, stones for making fire, draught-boards and draughtsmen, weighing-scales, &c., in short, everything necessary for the service of an army. In a bog or former creek of the sea near Nydam, in Slesvig, a large number of such articles were deposited in an admirably constructed boat for thirty oarsmen. At the bottom of the boat holes had been cut in order to sink it.[1]

There can be no doubt that what has been excavated from these bogs has been spoil taken in war, which has been dedicated to the gods as a thank-offering for victory. According to trustworthy historical records it was the custom among many nations of antiquity, in order to insure victory before the battle, to promise the conquered booty to the gods; and after the victory horses, men, weapons, with the rest of the plunder, were devoted to destruction.[2] To this custom several finds in England may perhaps be referred (in Yorkshire, Somersetshire, and Berkshire), also those at Tiefenau, in Switzerland, and near Dobelsberg, in Courland.

Such numerous and homogeneous memorials of battles were not known in Denmark during any previous or succeeding period. They do not embrace any long amount of time, probably not more than a century. Of the Roman coins found, the latest were struck in the third century A.D., but some time must have elapsed before they reached the North; besides, the barbarians preferred the older and better Roman coins to the newer and inferior ones. Purely Roman articles are not found: all display a highly developed barbaric style originating in the

[1] C. Engelhardt, *Denmark in the Early Iron Age. Illustrated by Recent Discoveries in the Peat Mosses of Slesvig.* 4to. London: Williams and Norgate, 1866.

[2] Tacitus, *Annalium*, lib. xiii. cap. 57; Orosius, *Historiarum*, lib. v. cap. 16.

Roman culture, but with forms and ornaments peculiar to itself, and with its own runic inscriptions. Even if this style prevailed in the Rhine districts during the third century A.D., it can scarcely have been introduced into the lands lying immediately to the south of the Baltic, and into the remote North before the decline of the Roman Empire in the fourth, and the beginning of the fifth century. One of the latest, perhaps the very latest of these bog-finds is that from Flemlöse in Fünen, which, in company with many points of resemblance with the older finds, displays strikingly marked shapes and ornamentation, clearly indicating the transition to the new barbaric style, which became prevalent among the victorious Germanic race, after the fall of the Roman Empire, about 450 A.D. This is shown by the ornaments on the scabbards (Fig. 203), on the spear-shafts (Fig. 204), and on gold-mounted silver buckles (Fig. 205). The great convulsions and migrations which accompanied the fall of the Roman Empire must have occasioned a great increase of the population in the Danish lands. Up to this time people of Gotho-Germanic descent had dwelt peacefully both north and south of the Baltic. But by degrees, as the Slavonic race advanced from the east and occupied the southern coasts, as far as to the country near the Elbe, and large inland portions of Eastern Germany, the older inhabitants were driven towards the south and west into the former and partly vacated dominions of the Roman Empire. In the same manner the Franks entered Gaul, and the Angles, Saxons, and Jutes, took possession of Britain. Some of the contemporary wandering warlike tribes must, doubtless, have turned to the north and north-east. Here again history is silent, but the antiquities of that time speak all the more forcibly. It is during this period that in Northern Sweden, hitherto but sparsely inhabited, a vigorous, highly developed wealthy population first appears upon the scene, who no doubt had brought with them, from the districts to the east and the south of the Baltic, their own culture and their own considerable wealth. Numerous bog-finds, especially in the

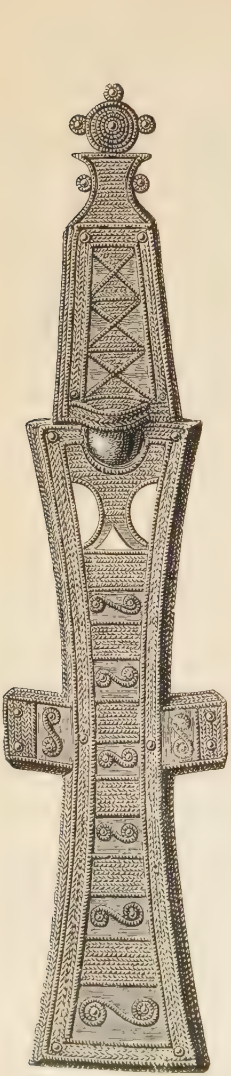

FIG. 202. (¼.)

FIG. 203*a*. (¼.)

FIG. 203*b*. (¼.)

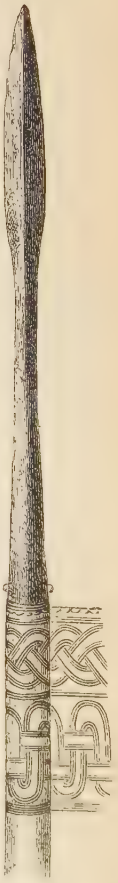

FIG. 204. (¼.)

western portion of Denmark, all testifying of fierce battles, indicate clearly a similar immigration of population from the basins of the Elbe and the Rhine. The remarkably rich skeleton-graves in Seeland and Fünen, with quite new funeral customs, denote clearly the immigration, or perhaps rather the invasion, of a conquering people from Mecklenburg and

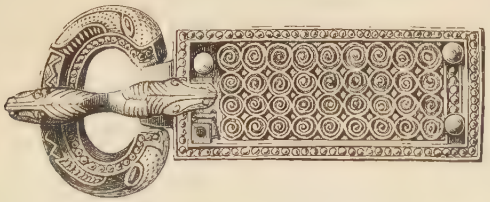

Fig. 205. ($\frac{2}{3}$.)

Pomerania, situated exactly opposite, and possessing similar burial rites. In any case, Denmark in various ways and from various directions must have received a considerable increase of population, which, in its turn, influenced Norway and completed the settlement of that country, especially towards the north.

II.

THE MIDDLE IRON AGE.

From 450 *to* 700 A.D.

By the fall of the Western Roman Empire, a new epoch commenced for Western, Northern, and Central Europe. The Germano-barbaric culture common to the entire Germanic race, which during the last period of the Roman Empire, and under its powerful influence had developed itself on the shores of the Danube, the Rhine, the Elbe, and the Baltic, was as it were with one impulse borne forward in various directions to Gaul by the Franks, to Britain by the Angles and Saxons, and by numerous settlers to the most northern part of Scandinavia. In some respects differences appear here and there. Thus, in some parts, the old custom of burning the corpses was preserved, although, as a rule, the bodies were buried, unburnt, in large common burial-places; but in all the chief characteristics, the same strongly-marked national spirit and religious belief is displayed throughout the dominions of the whole Germanic race. The sacred signs and the ornaments derived from them appear everywhere in the new Germanic states in the same forms as in the more ancient Germanic father-lands.

In the first centuries after the fall of the Roman Empire the finds betray extraordinary riches and splendour. Valuable weapons, ornaments in gold and silver, often inlaid with precious stones, vases and drinking vessels of bronze and glass,

&c., clearly prove what great treasures the Germanic tribes brought with them or became possessed of in the new territories they occupied. These finds also clearly show how they sought, after their own fashion, to appropriate the Roman industry to themselves, and how they by degrees developed constantly increasing variations from it, owing to the peculiar circumstances inherent to the different countries. In the valleys of the Danube and the Rhine, in France and the British Isles, Christianity, and the new culture belonging to it, soon began to extend its influence in all directions. A dissimilarity far greater than had previously existed arose between these countries and those of the remote North, which still continued heathen for several centuries.

The middle Iron Age in Denmark, in its culture-historical aspects is in unison with the coëval periods in other parts of Europe, viz., the Allemannic-Saxon in Germany, the Frankish in France, and the Anglo-Saxon in England, and like them is distinguished by unwonted richness and brilliancy. The treasures of gold from that period which have been discovered, especially in Denmark and Sweden, and which sometimes weigh as much as from ten to thirty pounds, far surpass the gold-finds from all the other periods, even those from the later Viking times in the North.

In consequence of the rapidly increasing wealth, the graves display no less splendour than at the end of the earlier Iron Age. The grave-articles consist of the same magnificent ornaments and vessels, but with scarcely any weapons. The foreign custom of burying the corpses, unburnt, in large burial-places, spread evidently more and more, even among the lower classes. Under this foreign influence the custom of heaping up large mounds over the graves seems to have ceased for a time in Denmark, particularly in certain parts of Seeland and Fünen. In Sweden and Norway, on the contrary, which lay more remote, this novelty did not force its way so easily. Large grave-mounds continued to be raised there in honour of the dead. The interment was

accompanied by the sacrifice of animals. Bones of the goose, the bird sacred to the sun-god, have been repeatedly found in graves, both in Denmark and Sweden, among the remains of other animals offered in sacrifice.

But, as in the preceding periods, the finds in the bogs and fields throughout Denmark are incomparably the richest. Frequently large massive neck-rings are found, made of gold, sometimes, however, alloyed with silver (Fig. 206). The ends are

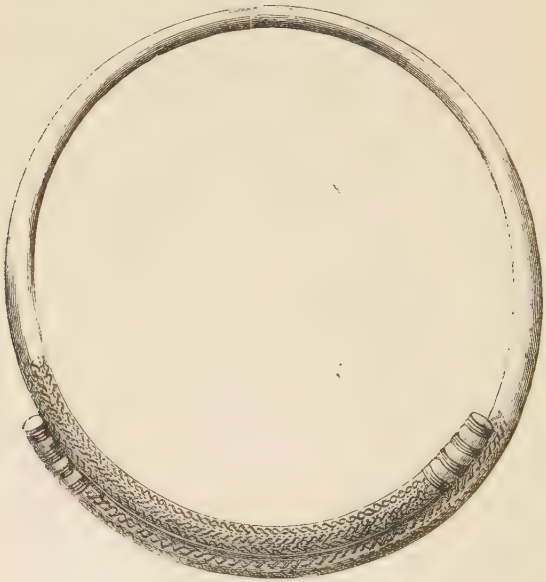

Fig. 206. (½.)

prolonged over each other, so that, seen from the front, they have the appearance of a double ring; they are sometimes decorated with S-formed ornaments, sometimes with half-moons. These valuable rings are usually found with broken pieces of ring-gold, which have evidently served as a means of payment, and other extremely valuable gold articles, such as large spiral-formed bracelets, brooches, finger-rings, neck ornaments, &c. The finger-rings (Fig. 207)

and brooches (Fig. 208) are frequently ornamented with precious stones or inlaid pieces of coloured glass. On the before-mentioned brooch, which is of silver overlaid with gold, besides the cross, are seen the triskele, hammer-shaped ornaments, the sun-snake,

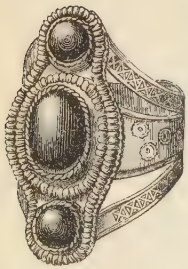

FIG. 207. (¼)

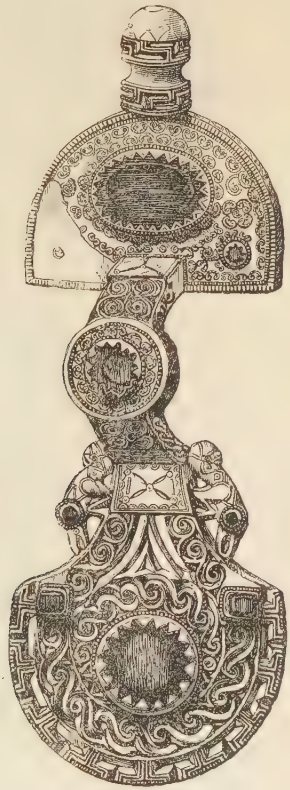

FIG. 208. (¼)

the sign for the moon, &c. Religious ornaments of a similar kind, among them the triangle with the sun or moon above, human figures, horses, snakes, &c., (representations of the gods and their sacred animals), adorn another silver-gilt brooch

(Fig. 209) of a shape commonly met with in Denmark, in England, and in the rest of the Germanic dominions in Europe.

The weapons were also richly decorated. The sword (Fig. 210),

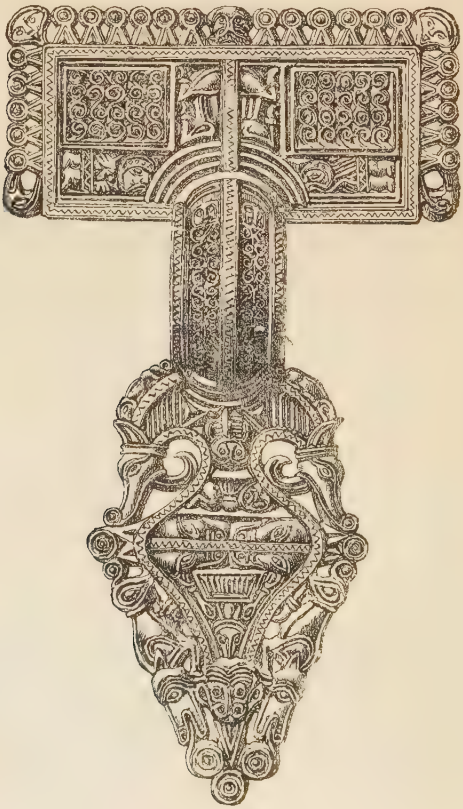

Fig. 209. ($\frac{2}{3}$)

from a bog in Seeland, is highly characteristic in this respect. The blade is damascened and the hilt is coated with silver and gold. On one side of the pommel (Fig. 210 *b*) there are beautifully interlaced ornaments; on the other (Fig. 210 *a*) are inlaid

FIG. 210. ($\frac{1}{3}$.)

pieces of red glass. Western Roman and Byzantine gold coins are generally found mingled with the gold ornaments. As a rule, these gold coins were chiefly employed as pendants, and are, therefore, generally bored or furnished with rings. The Byzantine coins which were struck in the fifth and sixth century A.D., indicate a new connection between the North and the Eastern Roman dominions which had been Christianised long before; by this means objects Christian in their origin and style found their way to the heathen North. Similar Christian patterns by degrees were introduced from the west and south, and enabled the inhabitants of the North during the middle Iron Age, by imitating the foreign models, to develop a greater variety in their industrial productions than in the preceding period of the Iron Age. When the more barbarous Slavonic people had taken possession of the land south of the Baltic up to the east coast of Holstein, the Danes and the rest of the inhabitants of the North were in consequence almost cut off from their Germanic relatives and neighbours. The narrow pass by the Eyder in Southern Slesvig, where the rampart "Danevirke" was afterwards raised, formed the frontier between the Danes and the Germans. Behind this barrier the Danes and other northern peoples were able, calmly and quietly, even if disturbed by intestine feuds, to develop their national peculiarities just as the contemporary English people in England, the French in France, and the Germans in Germany assumed each its own peculiar nationality, after the great migration *en masse* had once ceased.

A number of highly characteristic gold pendant ornaments afford the most remarkable and trustworthy testimony of the native industry of Denmark in the middle Iron Age. As among the other German nations, so it was the custom in the North to wear as amulets ornaments containing the sacred signs. In Germany, France, and England the signs are often formed of inlaid pieces of coloured glass or garnets; in the North they are

generally represented in gold open work, as, for instance, the cross and the triskele (Figs. 211 and 212).

The triskele, here formed of three half moons, strikingly recalls the same sign in the Bronze Age (Fig. 56). Another peculiar kind of round ornament or amulet consists of the so-called gold bracteates, which are only impressed on one side. They were originally imitations of Roman and Byzantine coins. But just as previously the Gauls in their copies of Greek and Roman coins by degrees stamped their own national and religious emblems by the side, or in the place, of the classic symbols, so the Germanic people depicted on the gold bracteates their own gods and sacred signs. On that account they selected for their models such coins as were best fitted for this transformation.

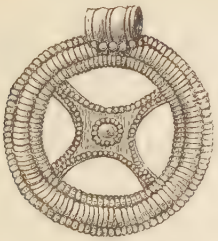

FIG. 211. (½)

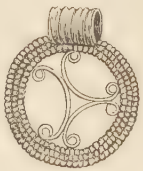

FIG. 212. (½)

The gold bracteates have, it is true, been occasionally found in Germany and in England; but nowhere have they been discovered in such numbers and with such rich ornaments and variety as in the North, particularly in the old Danish lands. They seem in Denmark to belong to the middle Iron Age alone; but in Sweden and Norway they probably remained in use much later. They possess a peculiar interest, inasmuch as from the late date to which they belong, the greater part of the representations on them may be explained, not only by the sacred signs in use from ancient times, but also by the accounts of the heathen creed and religion contained in the Eddas and other written documents of early times.

The gold bracteates have been disinterred from time to time, to the number of several hundred, from fields and bogs, but they have very rarely been found in graves. They occur so frequently in groups, and of such distinctive types, that any idea of the deposits being merely accidental is impossible.

On the old Gallic coins the triad or divine trinity is often represented by three heads united in one. The gold bracteate (Fig. 213) also displays a large head, with a helmet ending in a bird's head, in the centre of three figures, surrounded by three cross signs and accompanied by the triskele; on the one side is a man with a sword, on the other, a head placed over a horse. This is evidently the Scandinavian triad: Thor in the centre (as in the temple at Upsala), with Odin and Frey on each

Fig. 213. (½.)

Fig. 214. (½.)

side. Another type of coarser work (Fig. 214), which is very common, and varies but slightly, evidently represents Thor between two triad signs with his belt and hammer, on his thunder-carriage, with the eagle over his head; at his left stands Odin with belt, sceptre, and spear; on his right hand Frey with belt, wings, and wreath (as navigator of the air and god of fertility). Beneath lie two sceptres formed of ears of corn. The classic representation of Jupiter Tonans is here evidently transferred to the northern god of thunder.

Among several barbaric nations strongly influenced by the Romans, and particularly in Hungary, Jupiter Dolichenus, as god

of thunder, is represented sometimes standing on the back of a bull, which is decorated with a belt round its body; he holds a hammer in one hand, the lightning in the other, and over his head is the eagle; sometimes he is seen driving in a chariot (like Thor in the North) drawn by two he-goats, and with the lightning in his hand.

The classic influence is equally displayed in the bracteate (Fig. 215) where the northern god of thunder, Thor, is represented with an eagle and a bull adorned with a belt. A snake issues from his mouth (the lightning and the sun snake). The triad or trinity, of which Thor was the chief, is indicated by two swastikas as the emblem of Thor, the triskele for Odin (who is

FIG. 215. (½.)

FIG. 216. (½.)

himself described as forming a triad—Odin, Vili, and Ve—or Odin, Hönir, and Loder), and the cross, as the sun's sign, for the sun-god Frey. These three signs are universal, and, we may almost say, the only ones found, on the gold bracteates. Under the bull there is a mystic inscription in ancient runes. A sun and moon ornamentation surrounds the edge of the bracteate. Thor with the bull, the swastika, and a short mystic Runic inscription, which is indecipherable, appears on Fig. 216, and on a number of other bracteates.

In contradistinction to the bull, the he-goat, which quite as frequently accompanies Thor on the bracteates, has a long,

triangular beard. Above such a he-goat, adorned with belts (Fig. 217), is placed Thor's head, with a tiara or crown; between the triad signs (three dots) is seen the swastika. The ornamentation of the border is formed by the triskele (Odin's sign), Frey's cross, and the zigzag or lightning. The triangle under the loop for suspension is filled with moons or suns. The splendid bracteate (Fig. 218) also represents Thor with the he-goat, surrounded by the swastika, the triskele, and the cross (four suns forming a cross), the signs for Thor, Odin, and Frey. The ornamentation around the border consists of three dots (the triad), Thor's head,

FIG. 217. (½.)

and he-goats. On the loop for suspending it are the signs for the sun and moon, and in the triangle under it sun-snakes, and the lightning. Two snakes entwined together, the lightning, the sun and moon, and the swastika are seen under a head with a large helmet, (Thor) on the obverse of a rare pendant ornament (Fig. 219), a barbaric coin, or rather a kind of double bracteate. The reverse has in the middle a sign which here doubtless, as in other cases, indicates the earth with its four corners. Round it is

twisted a snake with its tail in its mouth, certainly the great sea-serpent (the "Midgaardsworm") lying in the ocean which surrounds

FIG. 218. (½.)

FIG. 219 (½.)

the world, and against which Thor waged such mortal strife. On several Gallic idols and on still older coins of Bohemia,

appears a similar large sea-serpent, sometimes with the tail of a fish, and in connection either with smaller sun-snakes arranged in the shape of a triskele, or with an axe or hammer, the sign of the god of thunder.

The gold bracteates with Thor's image are the most numerous, as well as the largest and most splendid known. They clearly prove that the god of thunder was the favourite god and the one most generally worshipped. Next after him comes the sun-god Frey —the god of fertility. Sometimes Thor and Frey are represented together as on Fig. 220. Between the signs so often

Fig. 220. (½)

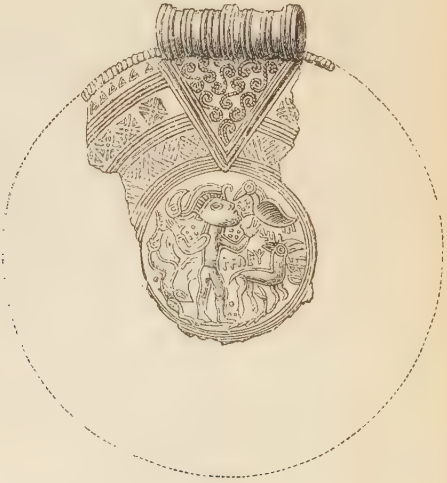

Fig. 221. (½)

mentioned, of the sun and moon (S and the half-moon with the horns curved inwards), there is here an erect figure (Frey), with the sceptre in one hand, and the signs for the sun and moon in the other. Beneath him is a horse (the sun-horse), and above the latter a large head with a helmet ending in a bird's head (Thor). On each side of the head two snakes are seen. Frey appears still more decidedly as the sun god on Fig. 221. Around the

god, who is adorned with belt and helmet with bird's head, stands the sun-horse, the sun-goose, the sun-stag, and under him snakes rolled together. Between Frey's head and the goose is seen a sun, near his neck two crosses formed of four dots, and at his feet the triad sign, three dots in a triangle. The ornamentation of the border consists of triangles and crosses, and, under the suspending ring, of sun-snakes.

The sun-god, Frey, is equally unmistakable on the bracteates where, with cross and triad sign, he is represented with his horse and his hog "Gullinbörste," the emblem of the sun with its golden rays. On some of the larger bracteates (Fig. 222) he has a hog

FIG. 222. (*)

on each side, and under him the sun-ship with bird's head on the prow, the clinker-built ship "Skidbladnir," so well-known from the Eddas, in which Frey, as navigator of the air, sailed with the gods. It was so artistically constructed, we are told, that it could contain all the gods and yet it could be folded up and carried in the pocket. At his head is the triad sign, formed of dots in a triangle, three on each side. The border is ornamented with a design formed of the triangle or zigzag, and of the usual

moon-signs. Strange to say, exactly similar sun-ships with horses' heads and sun- and moon-signs are found on the back of a large Anglo-Saxon gold buckle which was dug up in Kent. On the front triskeles and crosses are inlaid in coloured glass.[1]

The bracteates which may be supposed to have represented Odin, the universal heavenly father, or to have been dedicated to him specially as the third god in the northern triad, are comparatively rare, at least in Denmark. He seems to have been more worshipped in Sweden than in Denmark. A bracteate from Southern Norway (Fig. 223) may with some reason be supposed to represent Odin fully armed with sword and spear on the horse Sleipner, fighting the last desperate battle against the Midgaard's-serpent, and against the Fenris-wolf by which he was at last swallowed

Fig. 223. (½)

up. Several bracteates and other representations by figures of the same period in the North allude to this battle on the last day of the gods of Valhalla.

That the bracteates were in all cases valued as protecting amulets is proved by the sacred signs always impressed upon them. Probably many of them were votive articles which were used at the grand sacrifices to the gods, especially at the most solemn sacrificial feasts in the temples of the gods.

A distinct idea may be formed of the splendour and riches that must have reigned in these temples, even during that remote

[1] Ch. Roach Smith, *Inventorium Sepulchrale*, London, 1856, Plate 1.

period, from the two large horns or trumpets of the finest gold, weighing together upwards of fourteen Danish pounds (Figs.

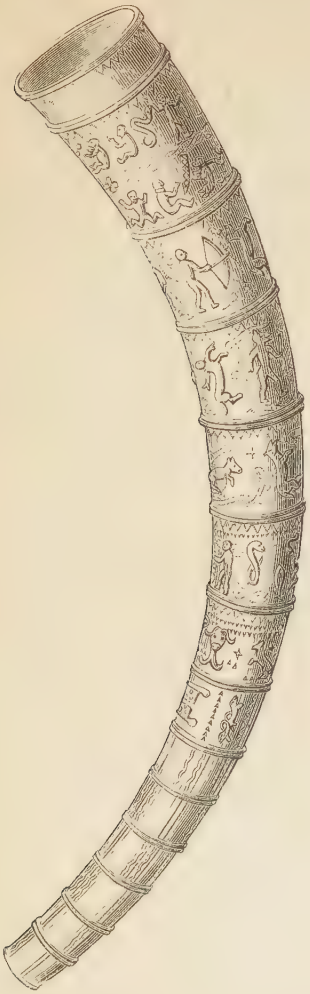

FIG. 224. ($\frac{1}{6}$)—Found 1639.

FIG. 225. ($\frac{1}{6}$)—Found 1734.

224 and 225), which in the years 1639 and 1734 were found, only a few paces from each other, at Mögeltönder in the north of

Slesvig ; they had, no doubt, been principally used for religious purposes, as had also the Wismar horn (Fig. 81), with its many sacred signs, and the larger trumpets from the Bronze Age (Figs. 112-114), of which the form of one (Fig. 112) strikingly recalls the later and more precious gold horns. Loops to attach the chains are to be seen on the gold horns as well as upon the bronze trumpets.

Unfortunately these invaluable gold horns were stolen and melted down in the year 1802. But several drawings of them, which in all essentials are trustworthy, have handed down to us the extraordinary rows of figures with which they were ornamented, and which afford the strongest evidence of their religious destination. The exterior of both the horns was formed of several loose bands fastened together, on which were signs and figures partly riveted on. The internal, solid part of the horns was, for the sake of the sound, of harder gold than the external portion. The longer and perfect horn was two feet nine inches long, and weighed six pounds seven ounces ; the smaller one, of which the tapering end was broken off, was for that reason a foot shorter; but, nevertheless, weighed seven pounds and about seven ounces, that is to say, a pound more.

The horns must originally have formed a pair, the figures upon them corresponding exactly to each other. Their style reminds us of the gold bracteates and other articles of native workmanship. The language of the runic inscription which surrounds the broadest part of the shorter horn, and contains the maker's name, also indicates its native origin.

The figures on the perfect horn (found in 1639) evidently represent life in the nether world, the snake-covered Helheim, the gloomy dominions of the goddess Hel (Figs. 224, 226). The imperfect horn (found in 1734) on the contrary represents the star-spangled Valhalla, the glorious abode of the superior gods above the sky (Figs. 225, 227). These representations are founded on the three great crimes of the wicked Loke, his theft of Freya's

shining brooch Brisingamen and of Idun's apple, but, above all, his artifice with the mistletoe, which, to the sorrow of both gods

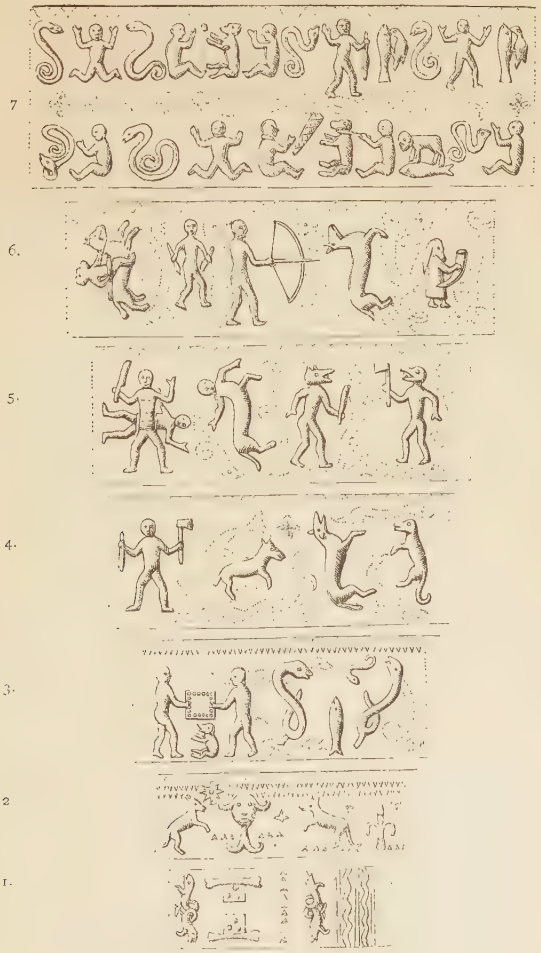

FIG. 226.—Figures on the horn Fig. 224, found 1639.

and men, caused the death of the bright and gentle sun-god, Balder, and his descent into the gloomy Helheim. As far back

as written accounts extend, the struggle between Light and Darkness, Summer and Winter, Good and Evil, has formed the principal foundation of the religious belief of the people of the North.

On the first and narrowest of the richly ornamented bands (Fig. 226, 1) of the larger and first discovered horn the river Gjöll is seen, which, as is indicated by its course upon the six preceding bands, separates the upper from the nether world. Between animals with their tails entwined together and probably alluding to the infernal regions, the hedge or fence of Helheim is represented, formed of nine triangles, over which Hermod, the messenger of the gods, was compelled to spring, mounted on Odin's horse, Sleipner, when he went to persuade Hel to release Balder. The sacred number nine doubtless indicates the ancient belief in nine worlds, nine heavens, and nine divisions in the infernal regions. Behind the hedge is seen the gate of Helheim with its posts of human bones, and the sign of the triad (three dots in a triangle) on the leaves of the gates. Both this sign and the triangle seem chiefly to refer to Thor, the head god in the triad, and the special guardian of the hostile monsters of the dark world, so dangerous to the gods.

On the second band is the Ash Yggdrasill, which had its roots in the infernal regions, surrounded by the sacred signs, the triskele, crosses and triangles three by three. Then follow the wolves, Sköll and Hati, who were supposed to chase the sun and moon in order to swallow them. From this point the stars on the succeeding band no longer appear, nor the sacred signs connected with them, with the exception of a peculiar, faintly dotted cross, doubtless a sign for the earth, or Frey, who, besides being god of the sun, was also god of the earth. From this point, also, behind the principal figures we see entwined serpents or human bodies with serpent-like tails. All the human figures are naked, with the exception of two.

On the third band Loke is seen, both in the form of a salmon, which shape he occasionally assumed, surrounded by a brood

of serpents, three in number, and in the form of an animal with a human head, sitting here concealed beneath Freya's stolen brooch Brisingamen, which is borne by two naked figures placed opposite to each other. Loke is also represented on the uppermost and last band both as a salmon and as an animal with a human head.

On the fourth band Thor stands with his club and hammer, or axe, guarding Loke's three wolf-children, behind which an entwined serpent, having the tail of a fish with the sign of the earth, shows how the Midgaard's-serpent encircles the earth; further on are the Fenris wolf and Hel, surrounded by snakes.

On the fifth band begins Hel's hall of death; it is continued on the next band, and is symbolised by the hovering forms, half human, half serpent, only found here. Foremost in the hall stands the goddess Hel herself, belted, and with a large knife in her hand. Behind her, stretched out at full length, lies a dead man, who, to judge from the peculiar costume, and from a strikingly similar representation on the other horn, must be the dead Balder carefully guarded by Hel. Near her are three monsters (her three sons): a horse with a human head—a "mountain giant" or sort of centaur—and two wolf-headed giants, one armed with a knife, the other with an axe.

On the sixth band appears the spear-armed Hermod, Odin's son, after his violent ride from Valhalla to Helheim. With a spear in each hand he enters the hall. Before him an archer is aiming at a hind, a representation twice repeated on the other horn. It is without doubt the killing of Balder by the unfortunate shot of Höd with the mistletoe. As the real sun-god Frey is indicated by a stag (the sun-stag), so it is no wonder that the god of the summer-sun, the bright, gentle, innocent Balder, is represented as a hind, or, as on the other horn, by a hind with her sucking fawn. In front of this group stands an old man with long hair and a long beard, in a peculiar garment, and holding a large horn. Except Balder he is the only clothed figure on the horn. He is therefore an important personage—old Odin with the mead-

horn. His presence here seems to declare that Odin's son Balder came to Helheim, and that even Odin himself could not prevent

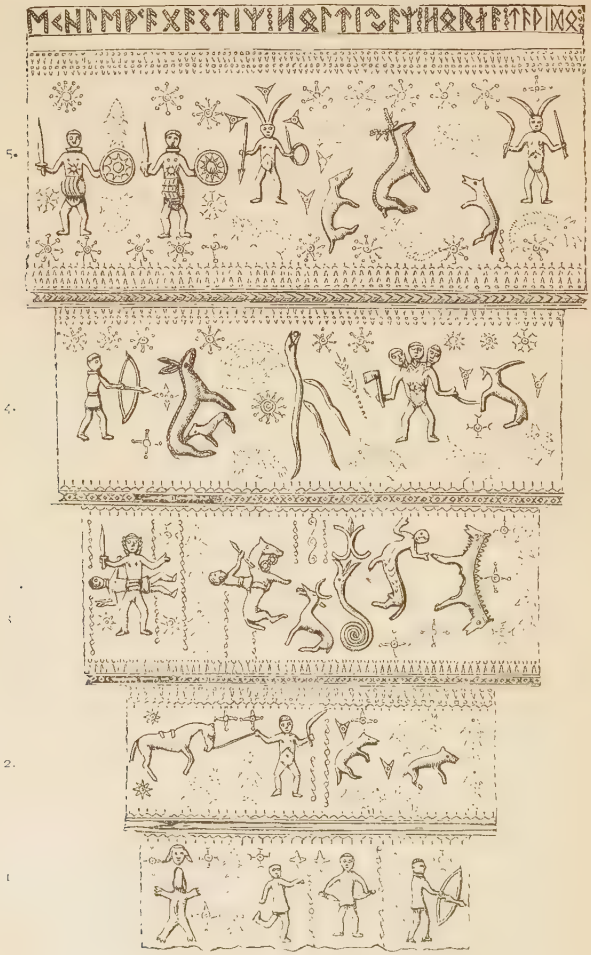

FIG. 227.—Figures on the horn Fig. 225, found 1734.

or alter it. The seventh and last band contains, in a double row of figures, the pursuit of Loke by the Ases. The erect snakes in

the S form (sun-snakes) indicate the presence of the mighty sun-gods. Loke is represented sometimes by a salmon, sometimes by an animal with a human head. Nearest to the mouth of the horn Loke's theft of Idun's apple is typified, the giant Thjasse, in the form of an eagle, pecks the salmon (Loke) to force Loke to the theft. Then is shown the commotion excited by Idun's disappearance, Loke's terror, the discovery of the apple in Loke's possession by the Ases, and Loke himself when compelled to bring Idun back to Valhalla.

A prominent figure, with an oar in his hand, is doubtless Thor, wading into the river to seize Loke, who has changed himself into a fish after Balder's death. In the other row of figures are seen Loke's different transformations, his capture by an As or god wearing a neck-ring, and, lastly, his punishment. He was bound fast with the bowels of his sons, and was then placed in a kneeling position, with outstretched arms, under a poisonous snake.

The series of illustrations on the smaller and last discovered horn (Fig. 227) have incontestably begun at the small end, which is now broke off. Sacred signs and stars, in continually increasing numbers, clearly indicate that the action takes place in heaven among the superior gods; outside Valhalla on the first three bands, in Valhalla itself on the two last. On the first three, therefore, fish are repeatedly placed over each other to indicate the streams of water which surrounded Valhalla.

The principal event outside Valhalla is evidently Balder's far-famed funeral, at which, according to the Edda, the gods and goddesses in grand procession were present with their sacred animals. Like Frey, the chief sun-god, Balder, as god of the summer-sun or the bright season, had also his sun-ship (Hringhorn) and his sun-horse, which accompanied him on the funeral pile. Even in the tenth century the heathen Olaf Paa decorated his hall in Iceland with carvings representing the procession of the gods at Balder's funeral, the quarrel of Heimdall and Loke about the brooch Brisingamen (comp. Fig. 226, 3), and Thor's

combat with the Midgaard's-serpent. On the first band, where unfortunately the commencement is wanting, are seen the archer and the hind, as on the other horn, with the difference that the hind is represented as dead from a deep wound; over it there is a woman's head with long hair, no doubt Balder's wife, Nanna, who died of grief and was burnt with him on the funeral pile. The head of the hind has served also as a loop to fasten the chain by which the horn was originally suspended. A man standing near with a spear or dagger in each hand seems to represent the god of war, Tyr, and the man with his foot raised must be Thor, who kicked a dwarf on to Balder's funeral pyre. Between the figures a spiral border is drawn. Over them is placed a cross (the sun-sign), and also crosses with half-moons on the arms (moon-signs), and a peculiar kind of cross formed of angles, which seems to have been Balder's special sign. A serpent biting its tail (the Midgaard's worm) divides this band from the next. On the second band, near two stars, or suns, and two crosses, is the sun-god Frey, wearing a belt pointed on each side (like Fig. 178), with a sickle in his left hand, and holding a horse with his right. Under him there are a fish and a hog (Gullinbörste).

On the second division of the same band, near the cross and two triskeles or signs of Odin, is seen Odin's procession to the funeral, with his wolves, Gere and Freke, his ravens, Hugin and Munin, and his hog, Sæhrimmer. On the third band, between stars and moon-signs, stands, on a space distinguished by strongly-marked ornaments above and beneath, a naked man wearing a body-ring or belt, and a helmet with ear-lappets, and a sword in his hand; behind him lies a dead man, stretched out at full length, wearing a helmet, neck-ring, and tunic. Viewed in connection with the figure, occupying a corresponding position on the other horn, it cannot be doubted that we have here the central point of the whole of the pictorial ornamentation, and that it represents Odin fighting for his dead son Balder, that he may preserve him for Valhalla.

The double border-line with sun- and moon-signs near this group probably signifies Bifrost, the bridge between heaven and earth. After Bifrost comes Hermod, on Sleipner, returning from his unsuccessful mission to Helheim to release his brother Balder. Under the horse's neck are the two gold rings, Odin's ring (Dröpner), and another, which Hermod brought back from Balder and Nanna to Odin and to Fylla, the hand-maiden of Odin's wife, Frigg. He approaches Valhalla. Outside the gate stands the sacred tree, Yggdrasill. According to the Edda, Thor was obliged to leave Valhalla and to wade over nine streams when the gods held their court or "Thing" at Yggdrasill. Under it is the snake, Nidhög, which, as the Edda tells, lay at its root, and by the side of it a stag which perpetually nibbled off its leaves and branches. Immediately before the gate is one of the horses with a human head, centaurs, or "mountain-giants," which always menaced Valhalla; therefore Thor kept constantly guard over them with his hammer. Sun- and moon-signs (crosses and crosses with half-moons on the arms) indicate the gate of Valhalla, decorated with horses' heads (the sun-horse), and, in full accordance with the Edda, provided with a spiked railing.

The two following bands, four and five, comprise the glorious Valhalla, the sacred home of the gods. Unlike the previous bands both on this horn and the other, the background to all the principal figures is here covered with stars (suns and moons) and numerous sun-pigs. Nor is there any longer a decided boundary-line between the separate figures as on the other bands of the horn. On the fourth band another archer, adorned as a god with neck- and waist-ring, again aims at a hind, but here with her fawn; Höd aiming at Balder. Höd, as an inferior god, is clothed, the superior gods only are naked. Before the hind is a peculiar cross with angles, which, probably, as has been mentioned before, is Balder's sign. An eagle pecking at a salmon over a large star recalls Loke's theft of the shining brooch of Freya, the

Brisingamen, just as the large snake with an apple in its mouth, surrounded by its young, symbolises Loke's theft of Idun's apple and his brood of vipers, so hostile to the gods.

Next comes the chief god, the triune Thor, represented as a naked man with three heads, each neck bearing the mark of the triad—a triangle; Thor has two stars upon his chest or stomach (the sun and moon) and a large symbol of fertility. In his right hand he holds an axe, and in his left a he-goat, under which another horned goat is traced with dots. That Frey is on the right is shown by a sceptre composed of ears of corn, while Odin on the left is indicated by two triskeles.

On the next and last band Frey appears alone, as the sun- and earth-god. Under his feet his hog, Gullinbörste, with its great tusk, curves its back over a star (the sun). The god himself is naked with the exception of the belt described before, and a helmet with two large horns, between which his sign, the cross, is placed. In his right hand he holds a sickle, in his left a sceptre. Next to him comes the stag, Eykthyrnir (the sun-stag), under which is the goat, Heidrun, from whose udder flowed the mead for the feasts in Valhalla, and then triskeles and Odin's two wolves, Gere and Freke, one on each side. In the centre of the band, under the runic inscription, stands the author of runes and of all things, the universal father, Odin, who, like Frey, is naked with the exception of a belt and horned helmet with ear-lappets. His sign, the triskele, is three times repeated; one is placed between the horns, the others on each side of them. In his right hand he holds his spear, Gungner; in his left the gold ring Dröpner, and a sceptre. Under him is the great hog, Sæhrimner, whose flesh, which always grew again, served the gods and the Einheriar or heroes of Valhalla for food.

On the other side of Odin, and surrounded by stars formed of the cross with half-moons on the arms, stand two figures armed with sword, shield, and helmet, and apparently also with visors; they have massive neck-rings and stars on their breast and body.

and a large star under each foot. As their shields differ, the one bearing sun- and the other moon-marks, and as the figures are surrounded both by suns and moons, it is not improbable that they may be personifications of these two great heavenly bodies so universally worshipped, and which included the most important gods and goddesses (Frigg and Freja). The loops for the suspending chains were placed in the centre of the waist-belts.

Finally, as a termination to the band, there is a very large star, which exactly corresponds to the star in the centre of the fourth band, just before Balder's hind. It is either Freja's brilliant star, or perhaps the sun itself, at its greatest height in the middle of the summer.

Whatever doubts may arise as to the details, the main point must be clear, that the representations on gold horns of such great value, especially in those remote times, cannot simply have been mere ornaments without any deeper signification.

As these gold horns, which are without equal in any other land, must have been used at public worship, it is quite natural that the most important gods and their religious myths should be depicted upon them, and that thus the horns should have served as a kind of religious pictorial book for the devoted frequenters of the temple. In the illustrations on the horns, and on the gold bracteates of the North, venerable from their great antiquity, those ideas may be distinctly recognised which formed the chief features of the religion of the inhabitants of the North, and of that of the Germanic nations nearly related to them, and which ideas at a later period were for the first time committed to writing in the Eddas. The rich symbolism which closely connects these and many other relics of northern antiquity, some of a more ancient, and some of a more recent date, and which betrays a resemblance to both classical and Christian symbols, testifies to the high degree of development to which the Danish people, under the influence of a mixture of foreign and national elements, had already attained at that remote period. By the introduction

of the runes, and by the acquirement of a widely used written language, a new field was opened for a steadily increasing civilisation. By degrees, this advancing culture developed more and more in Denmark, and the northern lands in general, assuming in several respects a peculiar, and barbaric, though a distinctly independent character.

III.

THE LATER IRON AGE OR VIKING PERIOD.

From the year 700—1000 A.D.

THE pre-historic period in Denmark strictly speaking closes with the Middle-Iron Age. Antiquities and monuments prove, beyond doubt, that the great Asiatic-European currents of civilisation, had, through thousands of years, regularly, though in comparatively late times, influenced the ancient Danish and other northern countries, and founded a most remarkable culture there. But the Danes and their northern kinsmen had not yet appeared on the stage of history, and they were accordingly only very little known abroad, and seldom mentioned by the chroniclers. The Northmen had prepared themselves both by peaceful and martial doings, and chiefly by shipbuilding and navigation, to play the important part which was allotted to them during the Viking period, when they, to the terror of Europe, appeared as masters of the northern seas.

The spread of Christianity in England, France, and parts of Germany, had already for some time tended to increase the ignorance of, and prejudice against, the heathens in Denmark and the other northern countries.

It is true that Denmark continued to keep up in some measure her old connection with the southern countries, whereby at an early date Christian objects, and even Christian ideas at least as regards industrial Art, influenced the inhabitants of Denmark.

But great political revolutions accompanied Christianity; large kingdoms were formed, and powerful sovereigns conquered many countries. When the German emperors, who subdued their Saxon neighbours of Denmark, commenced to threaten the religion and political independence of the Danes, the inhabitants of that country were forced to defend their southern frontier north of the Eider, in the present Sleswig, behind the before-mentioned earthworks, Kurgraven and the Danevirke walls, and there many heavy struggles continually took place.

It is a remarkable proof how much the intercourse between heathen Denmark and Christian western Europe had fallen off at the time just previous to the beginning of the Viking expeditions (about 770--800 A.D.), that up to this day no specimens of the oldest Merovingian and Anglo-Saxon coins have ever been found in Denmark. Between Norway only and the Anglo-Saxons in England a somewhat more active intercourse seems to have taken place, and a few isolated specimens of the older Anglo-Saxon coins have been dug up in Norway. On the whole, Frankish and Anglo-Saxon antiquities, even of the proper Viking period, are much rarer in Denmark than might be anticipated; whereas a considerable influence of Irish and Carlovingian style, is evident.

The latest period of the heathen Iron Age both in Denmark, Norway, and Sweden is besides remarkable for a common and characteristic northern stamp, which shows a greater independence of form and style than the previous periods of the Iron Age had been able to produce. It is like a powerful revival and renewal of an original art which for long had been forced back or subdued under the development of a foreign civilisation.

How active this movement had been as regards the spiritual development of the people may be seen from the fact that foreign runic characters, which the Northmen at the beginning of the middle Iron Age had adopted from abroad, were no longer sufficient for them. A new runic alphabet, with peculiarly

shaped characters, was formed apparently first in Denmark, and was afterwards adopted by all the northern countries. Each runic letter had its own name. Curiously enough the letter for S, which in form recalls the old sun-symbol, the snake, was called "sól," or sun. A number of runic stones have still preserved inscriptions both in prose and verse. From ancient time poetry was highly esteemed, and generally cultivated in the North. The mightiest kings and chiefs regarded it as a great honour to be praised by the songs of the bards, or skjalds. A chief characteristic of the Danes, and their northern kinsmen, was a thirst for glory in this life, an honourable name after death. and above all, a high veneration for the gods. It was therefore a common custom to erect runic stones on the graves of well-known men and women. In several runic inscriptions in Denmark the mighty god Thor is invoked to protect the graves. His mark, the swastika, is sometimes engraved on the stones, together with Odin's mark, the triskele. In Norway and Sweden, but less frequently in Denmark, the graves were also adorned with high-standing "Bautastones" without inscriptions. In Norway and Sweden the people continued, according to old heathen custom, to erect large barrows, in which the deceased chiefs were often buried in fully equipped ships, with arms and ornaments, and with their favourite animals, chiefly horses and dogs, which were sacrificed to the gods at the burial feast. In certain parts of Sweden, chiefly in the island of Gotland, the images of the mighty gods were often engraved on the runic stones in honour of the deceased. On the top of the Sandastone is represented, in a special panel, the northern triad, Odin with the spear, Thor in the middle, and Frey with a large goose, which bends its neck over him. On other stones are represented Odin with his horse Sleipner, with the ravens Hugin and Munin, and the wolves Gere and Freke. The smaller graves were frequently decorated with surrounding stones, often in the shape of ships, by which doubtless not only ordinary ships were intended, but also Frey's

sunship *Skidbladner*, which is also represented on several runic stones on Gotland. Other low triangular barrows, with sides curved inwards, which shape would otherwise be inexplicable, have evidently been shaped after Odin's mark, the triskele, and others again with straight sides after the triad mark, the triangle.

Similar grave-mounds were also constructed in Denmark, but owing to the earlier influence of Christianity in that country they are found less frequently. Burial in ships has not yet been proved to have taken place in Denmark. A favourite burial custom in that country, and one not less imposing, was to bury the chiefs with their carriage and horses, so that they, as is told in the old Sagas, might make their entry with the gods and the Einheriars into the lofty Valhalla, either driving in their carriage or on horseback.

Indeed the carriages, and horse-trappings, collar-harnesses, headgears, bridles, stirrups, &c., which were placed in the graves, plainly illustrate the peculiar richness and splendour which must have predominated in the time of the Vikings in Denmark.

The collar-harness (Fig. 228) which has hitherto always been found in pairs, and which consequently must have ornamented a pair of carriage horses, is of wood, with metal mounting, enriched with gold and silver, and inlaid with niello. Both the bows on the top, through which the reins were passed, and the end-pieces, are richly decorated with heads of animals (of horses, pigs, &c.).

On the faces of the gilt mountings are interlaced ornaments, with figures of birds and sacred symbols, chiefly Odin's mark, the triskele, in the shape of three shields joined together. The gilt human heads with beards, placed on the wooden pieces, and which are also often seen on the runic stones, without doubt represent the head of Thor.

Some of the figures of animals on the harness (horses, pigs, and birds) seem to have been chosen in reference to the sun-god Frey, to whom the horse was principally consecrated.

Frey's holy geese are clearly represented on the bows of

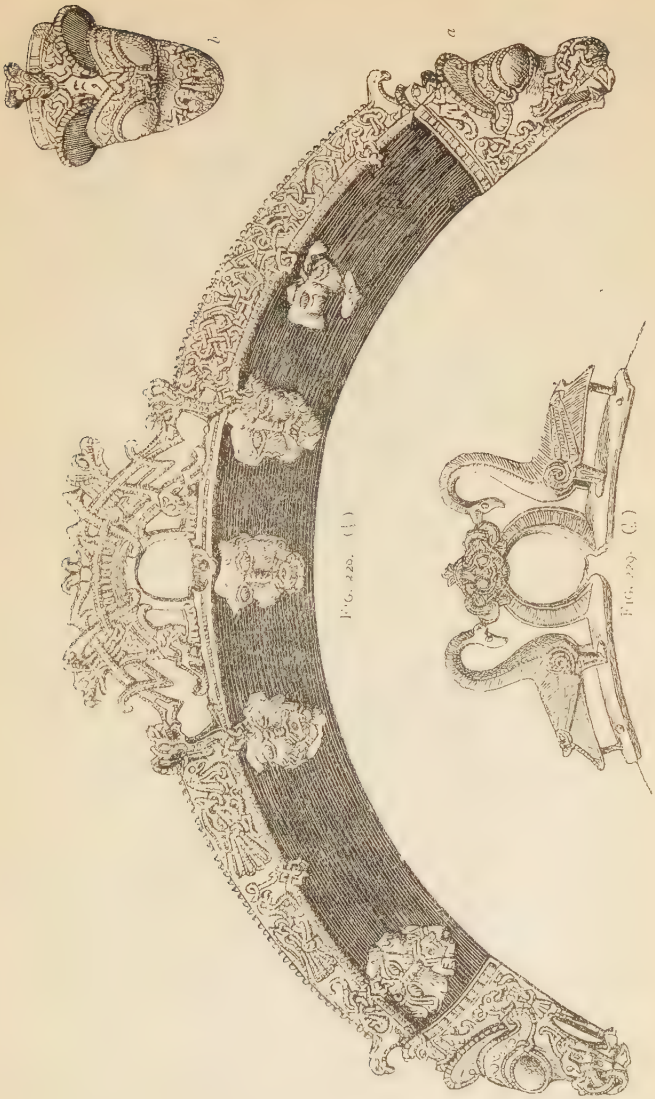

Fig. 429. (1)

Fig. 429. (2)

another collar-harness (Fig. 229), and form also the chief ornaments on the gilt metal mounting on the top of the large stirrups (Fig. 230).

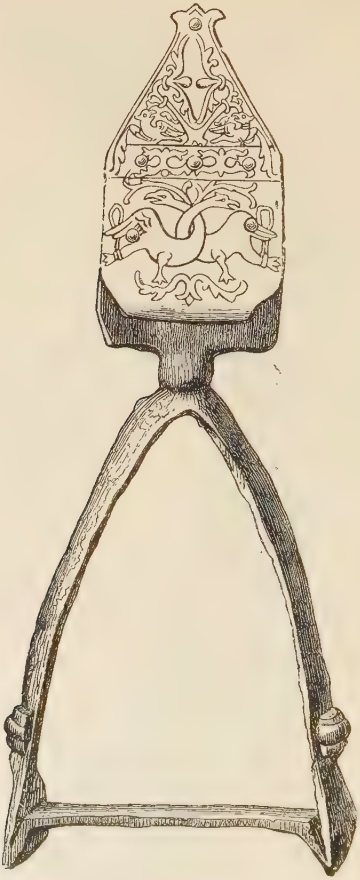

Fig. 230. (⅓.)

Such gorgeous and characteristic horse-ornaments have hitherto never been found south of the old Danish frontier on the Eider. Some of them (for instance, a splendid collar-harness richly

adorned and gilt), were dug up in connexion with other ancient remains from the site of a metal-worker's factory in the neighbourhood of Viborg, in Jutland. They are, however, more frequently found in graves, together with pieces of linen, bronze vessels, wooden buckets with metal mountings, and with the remains of large wax candles.

Similar relics of a costly funeral with offerings, viz., a bronze vessel, a wooden bucket, and a huge wax candle, were found on the top of a coffin of oak planks under a large barrow at

FIG. 231. (⅓.)

Mammen, near Viborg. Inside the coffin the corpse of a man had been stretched on pillows stuffed with down, and attired in an embroidered mantle of woven wool ornamented with thin pieces of cut gold. There were also found elastic bracelets, finely woven of silk and gold, the remainder of a belt also woven of silk and gold, and a magnificent war-axe of iron (Fig. 231), inlaid with silver and a metal very much like gold. Among the interlaced ornaments was one representing the sacred sign of the triskele. It is hardly to be doubted that this weapon is one

of those Danish axes so well known from the foreign chroniclers, which formed a most characteristic and much dreaded weapon of the Vikings, both at home and abroad.

Peculiar to the Viking period are also the large iron swords which were often provided with damascened blades, so highly valued by the Danes and other Northmen. The hilts, which have a short guard and a large triangular pommel at the end, were often either entirely of silver, or (as Fig. 232) covered with silver,

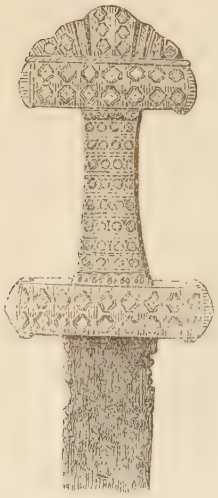

Fig. 232. (¼.)

Fig 233. (¼.)

and ornamented with inlaid work. On the pommel of the sword (Fig. 233) is seen the triskele, and on other swords the swastika with straight arms, or Thor's mark.

In their main features these swords remind us of the Anglo Saxon and Frankish weapons of the same period, but in the details they differ from them. The Sagas mention expressly the armourers of the North, and the high esteem in which they were held. The warlike spirit of the people, their passion for show, and their

wealth would naturally foster their ardour in acquiring splendid and costly weapons, and thus encourage the native industry.

The discoveries of the Viking period fully confirm the reports of the old Chroniclers, both native and foreign, as to the partiality of the Danes for handsome weapons, ornaments, and clothes. This also remarkably illustrates the numerous allusions in old traditions and songs to the skill of the northern women in embroidering, and weaving splendid and costly clothes and carpets. From a female grave near Randers, of the tenth century, were taken out pieces of woollen cloth (Fig. 234), with gold and silver thread woven into it, and trimmed with red silk. The

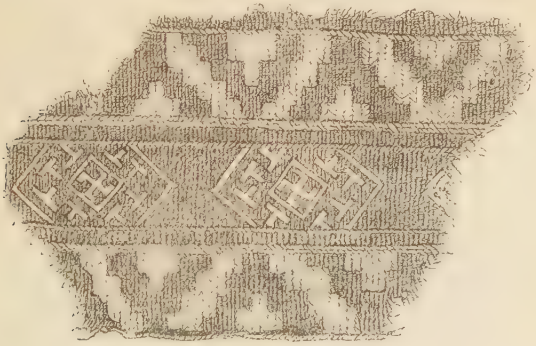

Fig. 234.

occurrence of the swastikas, or Thor's mark, surrounded by the sign of Thor's hammer, makes it not improbable that these stuffs were woven in the North itself.

Artistically plaited necklaces (Fig. 235), bracelets, chains, and rings, of gold and silver, were often worn as ornaments. The only difficulty is to decide with certainty, whether such ornaments were used by men or women, or by both sexes in common.

Of decided northern origin are the tortoise-shaped brooches, so frequently found in pairs, which have certainly been worn on the breast below the shoulders. Made of brass (copper and zinc) they seem originally to have consisted only of a single plate

(Fig. 236), richly and fantastically adorned in the purer style which marks the beginning of the Viking period. Later on, a solid gilt plate was covered with another of open work (Fig. 237), ornamented in a more barbaric manner, with figures of men and animals, and with sacred signs, such as the triskele and an interlaced cross or a quadrangle (Frey's mark).

Another characteristic northern ornament is the brooch, usually of a trefoil shape, which also is of gilt brass (Fig. 238). Between

FIG. 235. ($\frac{1}{2}$.)

FIG. 236. ($\frac{1}{3}$.)

images of suns and moons is seen in the middle a triskele, in imitation of which sign the whole brooch has evidently been shaped, like the above described triangular graves of the same period, the sides of which were bent inwards. The small S-shaped buckles, evidently formed from the sign of the sun-snake, continued to be used.

On the whole, it is evident that the Northmen of the Viking period, equally with the people of the previous period, applied

the sacred signs of the gods to their ornaments, in order thereby to turn them into protecting amulets. For this purpose not

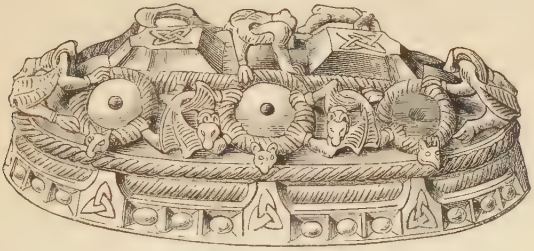

FIG. 237. ($\frac{2}{3}$.)

only Odin's mark, the triskele, and Frey's mark, the cross, but also Thor's sign, the swastika, and especially Thor's hammer-sign, were commonly used.

FIG. 238. ($\frac{2}{3}$.)

This last, for instance, appears several times on the silver bracelet (Fig. 239), but it was more frequently worn in the

shape of a small hammer of silver, hung from a plaited silver chain round the neck (Fig. 240), in fact, in the same manner as in later times the Christian cross was worn. Thor's sign, so frequently found, as also the supplications to Thor in runic inscriptions, prove unmistakably that Thor, to the end of the heathen period, continued to be the most esteemed and worshipped god in Denmark.

An ornament of very frequent occurrence, particularly on the silver trinkets, was the triad sign (three dots, set in a triangle), which already played a considerable part in the middle Iron Age.

It is highly probable that the cause of this ornament being so

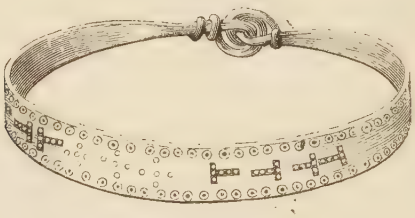

FIG. 239. (⅔.)

generally used, was that it reminded the wearers of Thor, the chief god in the northern triad.

In spite of the great riches that have been brought to light from the bosom of the earth, and in spite of the many treasures, which both through warfare and commerce must at that time have been imported into Denmark and the other northern countries, it still seems as if the latest Iron Age cannot, at least as regards richness of gold, compete with the previous middle Iron Age.

As the middle Iron Age may truly be called the northern Golden Age, so the latest Iron Age, or the Viking period, may be called the northern Silver Age. Large finds of the end of the ninth

FIG. 240 (½.

century, homogeneous both in the nature and manner of their deposit, are constantly brought to light in fields and bogs, consisting of broken silver ornaments, plaited chains, necklaces, bracelets, silver bars, coins, &c. These had, according to ancient customs, no doubt been buried as offerings to the gods, in the hope that the treasures would come back to the owner in the other world.

The large amount of silver at that time in the North, particularly in Sweden and Denmark, seems, however, not to have been the result of Viking expeditions, but rather of new and extensive commercial connections.

The Arabic, Byzantine, German, and Anglo-Saxon coins which are mixed with the silver trinkets in the finds, point to a new route of commerce, which from the close of the ninth century was opened between the North, the countries of the Caspian Sea and Constantinople, the capital of the Byzantine Empire. Through Russia, and from commercial ports on the southern coasts of the Baltic, large quantities of Oriental goods and coins were brought to the islands of Gotland, Öland and Bornholm, from which places a very flourishing trade was carried on with the Swedish and Danish lands, as well as with Germany and England. Larger commercial places or towns were also now beginning to arise at the more eligible ports in the North.

According to the concordant and unmistakable evidence of the antiquities and monuments, wealth and luxury, in many respects surprising, must have been prevalent in Denmark and the other northern countries, both before and after the beginning of the Viking expeditions (A.D. 770–800). At the same time was developed a style of ornamentation of a somewhat barbaric kind, and also writing with peculiar runic characters. The native industry, as regards the working of metals and of cloth, had risen to a considerable height. In the building of large sea-going and splendid ships, the Northmen were almost unrivalled. It

was accordingly not poverty or thirst for booty only which induced the Northmen to venture on the seas on adventurous and daring Viking expeditions. Neither did men of the lower classes command the Viking expeditions, but highly connected chiefs, and though the booty was a means of supporting themselves and their men, their chief object was to gain honour by martial exploits, which might give them admission to Odin and the Einheriars in radiant Valhalla. To those ardent worshippers of Thor, Odin, or Frey, it was both honourable and meritorious to ravage Christian countries. To this motive must be added the excess of population, and the increasing power of the kings so distasteful to the smaller chieftains. Quite an emigration took place by sea from all the northern countries, eastward towards Russia, but chiefly westward to the British Isles, Flanders and France, nay, even to countries before unknown, as the Faroe Islands, Iceland, and Greenland. The Viking ships congregated more and more on the western seas in large fleets, which were governed according to certain rules or laws, and with the view by means of regular conquest to win new homesteads. The Vikings often went on shore, took to horseback, and penetrated far into the interior of the land. The people of the western countries, weakened by intestine feuds, and by the revolutions caused by the introduction of Christianity, could not resist the undaunted and well-armed heathens. Wherever the Northmen settled they brought with them their own institutions and laws, by which they kept order and peace in the conquered countries. Everywhere they appeared with the splendour in weapons and clothes to which they were accustomed at home. They soon became connected with the highest aristocracy of the foreign countries, and evinced towards the subdued people an arrogance which was often oppressive. The strength and importance of the northern colonists may for a very long time be traced in the northern national character and judicial usages of their descendants, and also in numerous still existing Norwegian

and Danish names of places in Scotland, the north of England, Ireland, and Normandy.

The constantly increasing discoveries of graves and antiquities of a northern type in the west as well as in the east of Europe, the forms of which differ markedly from the contemporary native remains, prove clearly that the Northmen, amidst a foreign strong influence, long continued, with remarkable pertinacity, to cling to their language, Runic characters, style of art, manners, customs, and other home characteristics. Their destiny abroad was evidently to inspire the degenerated populations there with fresh and powerful energy, and a new spirit.

In these important Viking settlements, which were the termination of the preceding great European migration, each of the northern people had its own particular share. The Swedes went chiefly to Russia, where their colonists laid the foundation of the mighty Russian Empire. The Norwegians colonised the Faroe Islands, Iceland and Greenland, from whence they discovered America. They also settled on the Shetland Islands, the Orkneys, on the coasts of Northern and Western Scotland, on some of the north-western parts of England, and in several places in Ireland.

But the greatest part was evidently allotted to the Danes. Two centuries before the time of Canute the Great the Danes conquered and inhabited considerable parts of North England, thereby preparing the final conquest of the whole of that country.

Partly allied with, and partly at war with, the Norwegians, they occupied some of the principal towns in Ireland; and having afterwards conquered Normandy, their Danish-Frankish descendants, the Normans, after the downfall of the Anglo-Saxon empire, took possession of all England.

By the settlements of the Danes and Norwegians, ship-building, navigation, and commerce became highly developed in the western countries. Both in the north of England, and in the important commercial town, Dorestad on the Rhine, which for long was under

Danish rule, the Danes struck coins with peculiar representations of their old sacred signs, and of other emblems of their highest deities. Meanwhile Denmark continued to maintain her prominent position in the North. For a time she extended her dominion over the whole of Norway and other parts of the Scandinavian peninsula. Taking example from abroad, large kingdoms were formed in Denmark, which was as usual first influenced by the new currents of civilisation from the south. With truth, therefore, the transition from the pre-historic to the historic time in the North is called the "time of the Danish power." The northern language also was generally, both at home and abroad, called "the Danish tongue."

But at the same time the destruction of paganism was approaching. Already between the years 690-717 the holy Willibrord had preached to the Frieslanders and the Danes. By the year 800 several Danes, chiefly those living in the commercial ports, were converted to the Christian faith. Shortly afterwards (826) the first Christian church was built on the southern frontier of the peninsula of Jutland, in the important town Hedeby or Sleswig, and, although this church was soon after demolished, the victorious progress of Christianity could no longer be arrested. The intercourse with Christian countries increased more and more. Many obdurate heathens had emigrated, but were later on in foreign parts converted to Christianity. Among those who remained at home the faith in the old gods was shaken. But, strange to say, the Christianity of the western countries, where the Danes had made such large conquests, influenced Denmark less than Norway and Sweden. It was from the south, through Jutland, that Christianity was first brought into Denmark, but, like all preceding currents of culture, it spread only slowly towards the east, to Fünen, Seeland, and Scania.

The first bishopries were erected as follows: in Jutland in 948, in Fünen in 988, in Seeland in 1022, and in Scania in 1048. A whole century elapsed before the old chief places of sacrifice

at Viborg in Jutland, at Odense in Fünen, at Leire in Seeland, and at Lund in Scania made way for Christian churches.

The people however continued for a long time almost half heathens, and maintained their faith in the old gods, and in the protecting power of their sacred signs. It is true that the Christian teachers endeavoured with great prudence to attach Christian meanings to these signs, but the Northmen would

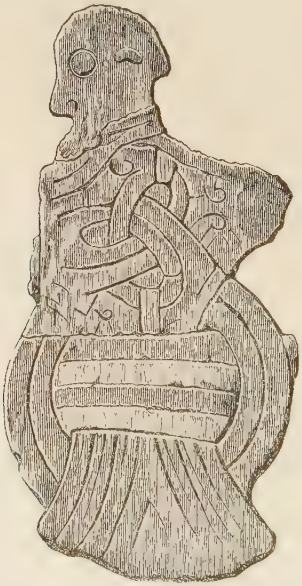

FIG. 241. (½.)

scarcely, so late in the Christian age, have continued to apply to secular and ecclesiastical objects, the old signs and the ornamental style so closely connected with them, if a heathen spirit had not still remained among the people.

On the large stones, erected, according to heathen custom, at the barrows of the last heathen king, Gorm, and of the first Christian queen, Thyra, at Jellinge, in Jutland, a figure of

Christ is seen surrounded by the heathen triskele. The same sign is carved on a wooden figure (Fig. 241) found in the grave itself, and the old ornamental pattern of twisted snakes and fantastical animals appears on a silver goblet, gilt inside (Fig. 242), which was also found in the grave. According to heathen custom the corpses were laid in the royal grave upon pillows filled with down, with wax candles at their sides. In Denmark, at a later period of the Christian age, may still be found the triskele, Thor's hammer, and the swastika, both on runic stones, fonts, and

FIG. 242. (¼)

other ecclesiastical objects. In Sweden and Norway the traces of paganism lasted even longer. In those countries old heathen legends, as for instance that of Sigurd Fafnesbane's fight with the dragon, and that of King Gunnar who, in the snake-pen, lulled the snakes asleep by the music of his harp, are represented on runic stones, fonts, and church porches. The worship of the great phenomena of nature, so predominant from the very oldest time in the whole of the North, must for a long time have continued to be observed secretly. Otherwise it would not have been necessary for King Canute the Great,

in his laws for England, Denmark, and Norway, expressly to forbid the Christians to worship the sun, the moon, and fire, according to heathen custom.

At last also these remains of paganism disappeared. The Christian civilisation, accompanied by a quite new style, common to all Europe, entirely destroyed the peculiar northern industrial and artistic development, which, in the later part of the heathen period, had thrown a formerly unknown glory over Denmark and over the rest of the North.

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